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# REVIEW of EDUCATIONAL RESEARCH

Volume IV

JUNE, 1934

Number 3

## TEACHER PERSONNEL

This issue revises and brings down to date the Review of Educational Research for April, 1931 entitled, *Teacher Personnel*. Related issues of the Review include: *Finance and Business Administration*, April, 1932; *Legal Basis of Education*, December, 1933; and *Methods and Technics of Educational Research*, February, 1934. These previous issues of the Review of Educational Research are available by purchase from the Association. See outside back cover of this issue for rates.

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

A Department of the

NATIONAL EDUCATION ASSOCIATION

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Volume IV

June, 1934

Number 3

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## TEACHER PERSONNEL

(Literature reviewed from November, 1930 to January 1, 1934)

Prepared by the Committee on Teacher Personnel: R. L. C. Butsch, Willard S. Elsbree, T. L. Torgerson, and Earl W. Anderson, *Chairman*; with the cooperation of Dennis H. Cooke, R. H. Eliassen, Jennette Stein, and J. G. Umstattd, and the assistance of E. R. Enlow, and A. M. Witherington.

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## FOREWORD

**T**HIS is the first number of the second cycle of the *Review of Educational Research* which is organized on substantially the same plan as the corresponding number of the first cycle. Accordingly, it is the first one in which the authors have been able to take advantage of the fact that more space is available to summarize the content of the studies which are reviewed. The bibliography is still extensive, but the authors of the various chapters of this number have succeeded in summarizing much of the information yielded by the studies as well as in pointing out the problems which have been investigated. The number will, therefore, prove useful to the person who wishes to secure the latest information on the problems of teacher personnel, as well as to the research worker.

FRANK N. FREEMAN,  
Chairman of the Editorial Board.

## INTRODUCTION

**I**N THIS second issue of the *Review of Educational Research* in the field of teacher personnel, changes in the topics covered should be noted. Three chapters which appeared in the first issue have been omitted in the second, and three new chapters appear in the second *Review*; changes also appear in the content of one chapter.

In a recent *Review* on the legal basis of education, a chapter on the legal status of the teacher was included.<sup>1</sup> It was not felt advisable to repeat this topic here, although it really belongs in this issue.

The fields of ethics and of teacher organizations did not offer enough material to justify chapters. The former chapter on teacher rating is included in this issue in a chapter on the measurement of teaching ability.

Three new chapters appear in the second *Review* on the following topics: "Local Residents and Married Women as Teachers"; "Teaching Combinations"; and "The Improvement of Teachers in Service."

The dates covered by the *Review* are as follows: in fields covered by the first issue of the *Review*, publications from November 1, 1930, to December 31, 1933. In fields not covered by the first issue of the *Review*, much material published previous to 1930 was included.

EARL W. ANDERSON, *Chairman,*  
*Committee on Teacher Personnel.*

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<sup>1</sup> Edwards, Newton. "The Legal Status of Teachers." *Review of Educational Research*. 3: 421-27; 460-62; December, 1933.

## CHAPTER I

### Teacher Supply and Demand

IN THE field of supply and demand sixty-seven reports which seemed worthy of noting in this review were published during the years 1931, 1932, and 1933. Fifty were factual studies; the rest were bibliographies, critical reviews, indices, predictions, and thoughtful suggestions. Five were national in scope; seven covered large sections of the country; twenty-five were statewide; and thirteen analyzed the placement success of single colleges. The great majority of the studies were concerned with public secondary and elementary schools in general, although three covered the field of commercial education (11, 39, 40), two, special education (36, 41), and one, college teaching (62). The sources of data included records of state departments of education, teacher-training institutions, and retirement offices; reports of college appointment bureaus and commercial teacher agencies; questionnaire returns; state directories; and data secured from students in training.

The most exhaustive study appearing during the period reviewed was that of Peterson and others (59) for the state of Iowa. Three preliminary reports of the National Survey of the Education of Teachers by Evenden (27, 28, 29) showed shifts in teaching positions and in sources of supply for new teachers by states. Overn (56) presented indices of supply and demand for the state of Minnesota. Williams (67) studied the turnover of Illinois high-school teachers over ten years; and Van Houten (64) reported the ten-year turnover in Pennsylvania high schools.

Crutsinger (17) and Elliott (26) made reports of teacher supply and demand for Texas and Michigan respectively. Annual reports of placements in specific institutions were made by Anderson (4, 5) for Ohio State University, and by Moritz (46, 47, 48) for the University of Nebraska. Umstattd (63) gave a nationwide picture in his report of teacher placement success in 1932 in 166 educational institutions. Supply and demand of college teachers as reported by 184 institutions was also investigated by Umstattd (62). Berning (8) studied the experience and training of 2407 unemployed elementary teachers found in Minnesota in 1932. Clement (12) collected data from the training institutions of California regarding the number and qualifications of unemployed teachers in 1930. Annual reviews of investigations in supply and demand were made by Eliassen and Anderson (24, 25). An incomplete annotated bibliography covering a number of years was made by Horton (33).

The average percentages of placement of graduates in 166 educational institutions as reported to Umstattd (63) in January, 1932, was 68 in the high-school and 42 in the elementary-school fields respectively, 59 for the men and 54 for the women. Adams (1) found that the average for 135 institutions in 1932 was approximately 60 percent. All reports indicated that the percentages of placement were lower in 1932 than in previous years.

Placements at the Ohio State University decreased from 49 percent in 1931 to 40 percent in 1932 (5). At the University of Kentucky the placements were reduced from 70 percent in 1929 to 57 percent in 1932 (10). Placements in New York averaged about 60 percent (16); in South Dakota 70 percent (38). For 1933 Moritz (48) reported that 37 percent of the candidates who attended the University of Nebraska in 1932-33 obtained positions. According to Monroe (45) not more than one-fifth of the available high-school teachers in Illinois in 1932-33 secured positions. In Texas the supply was more than twice the demand (17). A surplus in Michigan in 1931-32 was 4312, or 65 percent of the production of that year (26).

There were 3700 fewer teaching positions in Michigan in 1933 than there were in 1930 (26). Ludeman (38) reported 400 fewer teaching positions in South Dakota in 1932 than during the preceding year.

According to Monroe (45) the turnover has been reduced from 18.7 percent in 1931 to 11 percent in 1933. Myers (51) reported that the normal annual demand for teachers in the United States has been reduced from 100,000 to about 10,000.

A net decrease of 416 college teaching positions was reported to Umstattd (62) by 184 institutions between 1931-32 and 1932-33. Between the years 1920-21 and 1931-32 the number of doctorates conferred annually in the field of science increased from 455 to 1148, whereas the average annual number of appointments in the 184 institutions reporting dropped from 10.7 to 6.9.

The following factors which prevent teachers from securing positions were listed by Clement (12) in the order here named: surplus, choice of location, marriage (women), limited certificate, poor subject combination, age, unsatisfactory personality (unfriendly, immature, unresponsive, uncooperative, exotic, poor voice, poor English, lack of initiative, unpleasant appearance), poor recommendation, late registration, not available in time, poor health or physical handicap, salary, and continued study. Increased attendance at teachers colleges, increased salaries, and increased number of degree-granting institutions were named by some writers. Reduction in public-school teaching personnel and decreased opportunities in other occupations are among the other causes mentioned.

Numerous factors influencing supply and demand in teaching are specified.

### **Factors Influencing Supply**

Factors which cause an oversupply—

1. The tendency for former teachers to return to the teaching profession (2, 19, 32, 64)
2. Teaching salaries comparatively more attractive than formerly (4, 32, 47, 65, 67)
3. Reduction in non-teaching opportunities, causing preparation for short-time teaching by many who formerly planned to go into other occupations (2)
4. Reduction in the number of women leaving teaching to get married (2)
5. The output of trained teachers (4)
6. Lack of inter-institutional cooperation (43)
7. More men in teaching.

### Factors which reduce an oversupply—

1. More careful selection and guidance of teachers (32, 43, 56, 65)
2. Higher standards of teacher training (32)
3. Higher certification standards (43)
4. Revival of business.

### Factors Influencing Demand

#### Factors which reduce the need for teachers—

1. Decreased birth rate (19, 32, 64)
2. Increased pupil-teacher ratio (4, 64)
  - a. Elimination of small classes
  - b. Increased size of classes
3. Contraction or elimination of school services; such as, kindergartens, preschools, special subjects, adult education, night schools, continuation schools, correspondence courses (32)
4. Longer tenure of teachers (32, 64, 65, 67)
  - a. Fewer women leaving to get married
  - b. Fewer leaving to enter other gainful occupations.

#### Factors which increase the need for teachers—

1. Increase in enrolment (2)
  - a. Higher compulsory-attendance ages
  - b. Stricter enforcement of compulsory-attendance laws
  - c. Increased years of average attendance.

#### Factors which may cause changes in demand in the future—

1. Provision for equalizing opportunities in the elementary and secondary fields (43)
2. Expansion of school services; such as, kindergarten, special subjects, adult education, etc. (2, 27, 28, 29, 32, 64)
3. Improvement in general financial conditions (18)
4. Changes in the number leaving teaching (64)
5. Changes in qualifications demanded of teachers; such as, age, sex, training, experience, marital status (43, 47, 64)
6. Removal of personal and political prejudices and favoritism (9, 43).

### Proposed Remedial Measures

The more recent investigations devoted more space to the consideration of a way out of the present situation of teacher surplus than to any other phase of the problem. Numerous recommendations have been made, among which the following are most prevalently stressed:

- Raising certification requirements (15, 16, 26, 51)
- More careful pretraining selection of teachers (15, 26, 51)
- More widespread training in several fields (50)
- Continuous studies of the teacher situation (16, 26)
- Longer period of teacher training (15, 26)
- Contraction of teacher production (26, 48)
- Coordination between agencies training and certifying teachers (26, 51)
- Elimination of multiple jobs (26, 51)
- Internships for unemployed teachers
- Retirement of teachers eligible for retirement (51)

Removal of tenure protection from incompetent teachers (15)

A state salary schedule to eliminate the economic advantage gained by local school boards in employing inadequately trained teachers (15)

More careful placement of teachers in fields for which they are prepared (15).

Anderson (6) predicted that as times get better more women teachers will marry and those who taught as a temporary expedient will return to other types of work. Gradually the standards of training will be raised and there will develop new needs for education. However, factors such as radio, self-teaching devices, and larger classes may somewhat reduce the number of teachers needed, but the investigator feels that the new demands, especially in the field of adult education, may offset these factors.

Myers (51) warned that unless more is done about the teacher supply and demand problem, the supply of teachers will repeat the cycle which began in 1919 with a serious undersupply of teachers, then proceeding to a balance of supply and demand in 1926, and to a serious oversupply in 1932. By 1939 we will again have a balance of supply and demand and by 1946 there will be another serious shortage of teachers comparable to that of 1919. To avoid this situation there must be better regulation of and coordination between agencies training and certificating teachers.



## CHAPTER II

### The Measurement and Prediction of Teaching Ability

THE general conception of the measurement of teaching ability prior to the present decade was a very narrow one. Teacher rating was largely an administration activity performed by supervisors in connection with the tenure and promotion of teachers in service. Today, educators are seeking valid and reliable measures of teaching ability as a basis for: (a) the selection of teachers to be trained; (b) the evaluation of teacher-training programs; (c) the placement of teachers after training; and (d) a more scientific program for the improvement of teachers in service.

#### Difficulties Inherent in the Problem

The measurement of teaching ability is a complex problem involving human relationship and social adjustment. In the solution of this problem some of the procedures to be considered are: (a) establishing a criterion in terms of the ultimate objectives of education; (b) reducing such a criterion into measurable behavior; and (c) controlling the many variables, other than the influence of the teachers, affecting changes in pupils. The criterion may embody the teacher's scholarship traits and teaching activities, when the relationship of these characteristics to success in teaching is known, or it may be concerned with desirable changes produced in pupils when the aims of education are definitely established.

#### Desirable Teacher Traits

*Student opinions*—The most desirable traits of teachers in the opinions of students of various ages were: mastery of subjectmatter, personality, appearance, fairness, kindness, and sympathy, according to Clinton's study (78) of 177 college students; ability to make pupils understand their work, good discipline, impartiality and fairness, kindness and sympathy, a sense of humor, and ability to make work interesting, according to Davies' study (79) of 72 junior high-school students; impartiality, sympathy, appearance, patience, interest in extra-curriculum activities, sincerity, enthusiasm, cheerfulness, sense of humor, and dignity, according to Flory's study (81) of 370 teachers in training; health, ability, initiative, enthusiasm, appearance, tact, leadership, judgment, and patience, according to Malan's study (84) of 336 student teachers in training; and sense of humor, justice, consideration, friendliness, appropriate dress, good voice, neatness, attractiveness, interest in individual students, and sincerity, according to Macdonald's study (83) of 320 student teachers in training.

Four of the above investigators cited impartiality, fairness, and appearance; three cited kindness, sympathy, and sense of humor; and two cited enthusiasm and patience as the most desirable teacher traits.

Using a prepared checklist to indicate strong and weak qualities present in their high-school teachers, 524 college students reporting to Ludeman (82) listed scholarship, teaching technic, and culture as outstanding strengths, and unfairness and lack of ability in teaching students how to study as outstanding weaknesses. Macdonald (83) found that the practices listed as most desirable by 320 student teachers in training were: clear assignments, work well organized, short objective tests after each unit, summaries, and use of blackboard.

*Supervisory estimates as listed on teacher rating scales*—An analysis of 209 rating scales in use by school systems throughout the United States was made by Barr and Emans (72). The ten points most frequently mentioned in these scales were as follows: instruction, classroom management, professional attitude, choice of subjectmatter, personal habits, discipline, appearance of the room, personal appearance, cooperation, and health.

*Relationship of teaching ability to various criteria of teaching success*—A large number of investigators in studying this problem have employed the correlation technic. Yaukey and Anderson (94) in summarizing these studies report the coefficients shown in Table 1.

TABLE 1.—RELATIONSHIP OF TEACHING ABILITY TO VARIOUS CRITERIA OF TEACHING SUCCESS, AFTER YAUKEY AND ANDERSON (94)

Elements compared	Number of studies	Coefficients of range	Correlation median
Intelligence and student teaching success.....	18	— .028 to .54	.23
Student teaching and teaching success in the field	14	.06 to .70	.23
Intelligence and teaching success in the field (high school) .....	5	.15 to .57	.33
Intelligence and teaching success in the field (elementary school) .....	10	— .06 to .20	.024
Intelligence and scholarship.....	8	.247 to .62	.465
Scholarship and teaching success in the field.....	40	.01 to .77	.315
Scores on professional test and teaching success in the field.....	11	.001 to .76	.26

The studies related to the measurement of teaching ability reported during the past three years differ but slightly from the earlier investigations as to the technics employed and the results attained. The measures used tend on the whole to be more objective than those used in the previous studies. Two studies used criteria that were highly objective. Barr, Torgerson, and others (71) employed several criteria including a composite criterion consisting of several variables. These studies fail, however, to reveal teacher

traits, characteristics, or teaching procedures highly related to such criteria of teaching success as practice teaching, success in the field, or pupil achievement. The zero order coefficients of correlation obtained in the several studies are set forth in Table 2.

### Further Statistical Treatment of the Data

*Reliability*—The following reliability coefficients were reported for certain measures used in these studies: Barr, Torgerson, and others (71), seven rating scales .89 to .93; Bossing (74), rating scale .00 to .79 for each of nine items in the scale; Dodd (80), supervisory ratings .93; Simmons (89), supervisory ratings .71 to .95; Torgerson (90), rating scale of instructional activities .89; Upshall and Masters (92), intelligence test .85, achievement tests .72 to .95, practice teaching .80 to .92; Van Hoesen (93), professional information test .90.

*Multiple correlations*—Barr, Torgerson, and others (71), by combining achievement in arithmetic, a rating scale of instructional activities, and a test of professional information, reported a multiple correlation of .70 with a composite criterion consisting of gain in pupil achievement, seven rating scales, and nine measures of teacher traits and qualities. When only the rating scale and professional test were combined, a multiple coefficient of .66 was obtained. Betts (73), by combining a test of professional information, intelligence, and vocabulary and holding constant the pupil's initial reading, initial variability in reading, and initial chronological age, obtained multiple coefficients of correlation of .29 with final reading, .42 with final variability in reading, and .49 with a composite of reading ability and variability in reading. By combining eleven variables, made up of practice teaching, scholarship, intelligence, social intelligence, self-ratings, professional tests, interests, and socio-economic status, Ullman (91) obtained a multiple coefficient of .54 with success in the field. Breckenridge (75) combined high-school marks with intelligence, thereby obtaining a multiple coefficient of correlation of .26 with practice teaching.

*Regression equations*—Barr, Torgerson, and others (71), investigated the accuracy of prediction of the regression equation, which combined the scores of a rating scale of instructional activities with a test of professional information, in placing teachers in five groups. The criterion consisted of nineteen variables combined into three component parts, each of which was weighted equally. The predictions were correct for 64 percent of the cases and misplaced 32 percent of the cases by one group. Similarly, Ullman (91) combined eleven variables in a regression equation. Using a criterion consisting of supervisory estimates of teaching success in the field, he obtained predictions which were correct for 46 percent and incorrect by one group for 39 percent of the total number of cases.

### Summary

Pupils in listing desirable teacher traits emphasize the personal and social qualities of their teachers. On the other hand, the judgments of teach-

TABLE 2.—SUMMARY OF EXPERIMENTAL STUDIES OF THE MEASUREMENT OF TEACHING ABILITY, NOVEMBER 1930-33  
(ZERO ORDER COEFFICIENTS OF CORRELATION)

Investigator	Variable	Number of Cases	Coefficients of correlation of variable with:		
			Practice Success teaching in field	Pupil achievement	Composite criterion
Bossing (74)	Practice teaching	165	.69		
Broom (77)	Practice teaching	243	.29		
Ullman (91)	Practice teaching	116	.36		
Upshall and Masters (92)	Practice teaching	100	.27		
Barr, Torgerson, and others (71)	Intelligence	66	.13	-.19	.36
Betts (73)	Intelligence	66		.33	
Breckenridge (75)	Intelligence	215	.09		
Broom (77)	Intelligence	137	.24	.17	
Broom and Ault (76)	Intelligence	64	.10		
Neel and Mead (85)	Intelligence	64	.14		
Reitz (87)	Intelligence	2750		.06	
Ullman (91)	Intelligence	116	.24	.15	
Upshall and Masters (92)	Intelligence	100	.33	-.06	
Anderson (70)	Scholarship—High school	590		.12	
Anderson (70)	Scholarship—College	590		.19	
Barr, Torgerson, and others (71)	Scholarship—Arithmetic	66		.02	
Bossing (74)	Scholarship	165		.19	
Breckenridge (75)	Scholarship—High school	215	.26		
Broom (77)	Scholarship—Professional	237	.04		
Broom (77)	Scholarship—Academic	240	.39		
Broom and Ault (76)	Scholarship	50		-.02	.17
					-.06

Investigator	Variable	Number of Cases	Coefficients of correlation of variable with:		
			Practice teaching in field	Pupil achievement	Composite criterion
Neel and Mead (85)	Scholarship	64	.37		
Ullman (91)	Scholarship	116	.22 to .46	.20 to .30	
Upshall and Masters (92)	Scholarship	100	.45	-.05 to .14	
Barr, Torgerson, and others (71)	Personality	66	.35	.15	.26
Neel and Mead (85)	Personality	64	.69		
Barr, Torgerson, and others (71)	Social intelligence	66	.10	.09	.35
Ullman (91)	Social intelligence	116	.17	.18	
Barr, Torgerson, and others (71)	Interests	66	-.11	.03	.20
Ullman (91)	Interests	116	.11	.02	
Barr, Torgerson, and others (71)	Health	66	-.11	.23	.04
Torgerson (90)	Instructional skill	88	.65	.53	
Barr, Torgerson, and others (71)	Professional test	66	.08, .16, .28	-.10, -.04, .08	.22, .35, .43
Betts (73)	Professional test	66		.34	
Dodd (80)	Professional test	135	.43		
Peterson (86)	Professional test	145	.02		
Peterson (86)	Professional test	28	.18		
Ullman (91)	Professional test	116	.12, .27	.09, .14	
Van Hoesen (93)	Professional test		.56, .66		
Betts (73)	Vocabulary	66		.24	
Barr, Torgerson, and others (71)	Supervisory ratings	66		-.15	.23
Simmons (89)	Supervisory ratings	40		.22 to .33	
Ullman (91)	Socio-economic status	116	.04	.19	
Upshall and Masters (92)	Age of high-school graduation	100	-.23	-.16	
Barr, Torgerson, and others (71)	Teacher rating scales			-.32 to .19	.43 to .76

ers and supervisors as reflected by items in a wide variety of rating scales, set forth instruction, management, and professional attitude with the greatest frequency.

A number of the studies are based upon a very inadequate number of cases. The studies present no conclusive evidence that practice teaching is a valid measure of teaching success as measured by supervisors in the field. No single measure reported has sufficient validity in terms of the criteria used to establish it as a valid measure of teaching ability. In most instances the investigators failed to secure validity coefficients for the tests of professional information that were comparable with those reported by the authors of the tests. The application of these tests to new groups of teachers affords the real test of the validity of the measuring instrument and may explain at least in part the discrepancy between the coefficients reported by these investigators and those reported by the authors of the tests. In using pupil achievement as a criterion little or no attempt was made by the investigators to control such important variables as the intelligence of the pupils, size of class, curriculum validity of the achievement tests, initial efficiency of the pupils, or variability in the out-of-school environment of the pupils. The outstanding weakness of the studies is the lack of care used by the investigators in establishing reliable and valid criteria. It is, of course, obvious that valid instruments of measurement cannot be determined until a valid and reliable criterion of teaching ability has been established.

A great deal of time and energy has been expended during the past two decades in an attempt to determine the specific traits, qualities, and teaching activities which are related to teaching ability. The results in terms of positive relationships are not highly encouraging. More objective technics and refinement of statistical procedures have served in many instances to lower the relationships. Is the primary difficulty one of using an inadequate criterion? Should the criterion be a composite consisting of many variables? May it be possible that the solution of the problem lies in a study of teaching as a socializing activity and that new instruments and technics are necessary which will measure the success of the teacher in terms of desirable teacher-pupil relationships?



## CHAPTER III

### Recruitment for Teacher Training

#### Status and Trends

INVESTIGATORS are fairly well agreed that the present conditions in teacher training demand more careful pretraining selection of teaching candidates (105, 107, 126, 134, 144, 147, 151, 153, 157). Bixler (96) reported that methods of rating college entrants are still rather chaotic and that institutions generally are lax in their entrance requirements. Similar opinions were expressed by Cowan (111), Davis (112), Dearborn (113), and Trusler and Brown (164). Frazier (123), Van Duyn (169), and Weeks (170) noted a marked tendency towards added entrance requirements on the part of teacher-training institutions. Frazier (123) estimated that about 50 percent of the institutions for the training of teachers were applying special selective measures in 1929-30. Selective measures, however, should be continuous and not restricted to the pretraining period (109, 114, 133, 134, 135, 137, 145, 169).

One reason why institutions have been slow in adopting selective admission technics is the fact that they do not know what factors are reliable (98, 110). Butsch (106) reported that correlation studies in general have failed to reveal any significant relationships between general teaching ability, and training, scholarship, intelligence, experience, age, salary, credits earned, or professional tests.<sup>1</sup> Corey (110) presented similar evidence and concluded:

It should be at present impossible for any conscientious individual to advise students whether or not they should continue training for teaching. Despite our prejudices and deeply rooted convictions, the critical thinker will realize that, beyond some obvious physical handicaps such as blindness, deafness, or an extreme speech defect, we have no sound evidence to justify our recommendations.

A trend is revealed toward the selection of promising teaching candidates while they are still in high school (108, 153). Frazier (123) says in opposition to Corey's conclusions: "Teacher trainers are beginning to feel that selective admission to be effective should begin in the secondary schools." The belief is held that the high schools could perform a most valuable service by setting up a thoroughgoing guidance program beginning early in the student's work. Such a program could be used to recruit good material for teaching as well as to discourage the unfit. Eells and Fuller (117) indicated that over half of the prospective teachers attending junior colleges in California made their vocational choice in the high school, but that the students of higher mental ability showed a tendency to make their choice in the junior high school. According to Cooke (109) the superintendent of schools can wield the greatest influence for the im-

<sup>1</sup> See Chapter II for details of such correlation studies.

provement of the teaching personnel. Toops (160) advocated annual comprehensive testing programs in the high schools, beginning in the freshman year, together with at least one annual personal conference with each student on vocational and life aims and adjustments. Every pupil above average in intelligence, he feels, should be given a tryout in teaching while still in high school.

### Problems of Prognosis

The problems of the early prognosis of teaching success were well summarized by Bowman (98):

It must be admitted forthright that the early selection of likely candidates for teaching is beset with many difficulties. Three of these are particularly perplexing. First, there is the fact that there is little agreement as to what constitutes desirable education of children. This grows out of our general philosophic uncertainty concerning what, if anything, really constitutes a good life. The second difficulty grows of necessity out of the first; it is impossible by any means to pick good teachers unless we know what good teaching is, and it is impossible to know what good teaching is until we have first agreed upon what is a "good life" for ourselves and our children. In other words we now have no adequate standard of good teaching. The third difficulty is due to the elusive nature of some of the elements which are likely to enter into teaching or any other kind of success under almost any standards that are likely to be accepted.

Weeks (170) listed four problems dealing with the general problem of pretraining selection of teachers:

1. What factors contribute most to successful teaching?
2. How far can state-supported institutions go in selecting their students?
3. What attitude should teacher-training institutions take toward the law of supply and demand?
4. How should undesirable candidates for teaching be eliminated?

The purposes of selective admission are two-fold, according to G. W. Frasier (122). The first is to limit the number of teachers entering the profession. The second is to secure a better type of student for teacher education.

Many writers indicate a need for more accurate data on what constitutes successful teaching and the qualities required to predict reasonably such success (98, 118, 122, 136, 140, 141, 146, 154, 170). According to Corey (110) we know next to nothing about what factors in the teacher's equipment make for rapid and permanent pupil learning, and it is conceivable that we are doing almost nothing in our teacher training which will actually contribute to efficient instruction. Carrothers (107) advocated systematic follow-ups of teachers who are in the field in order to seek answers to some of these problems. In the opinion of Haggerty (124) most teacher selection technics forget the main factor in teaching; namely, the teacher-pupil relationship. He feels that the social phase of the teacher's personality has been neglected while the individual phase has been over-exploited in our research regarding teaching success.

## Technics of Selection

According to Frazier (123) the most commonly applied selective requirements employed by institutions training teachers are:

1. Superior high-school scholarship
2. Satisfactory scores on intelligence or other psychological tests
3. Satisfactory scores on standard achievement tests
4. Satisfactory scores on special subjectmatter entrance examinations
5. Satisfactory personal interview
6. Satisfactory health and physical examination.

Similar means of selection were illustrated or recommended by other investigators (100, 107, 147, 155, 156, 162, 163).

Hertzberg (128, 129, 130, 131, 132) reported concerning a group of studies of the problem of selective admissions made at State Teachers College, Buffalo, N. Y. In 1931 the college required:

1. A minimum average of 75 on the regents' examination
2. Appearance during the summer for a series of matriculation examinations, including:
  - a. Ohio State University Psychological Examination
  - b. Thurstone Personality Schedule
  - c. Morris Trait Index L
3. A record of a physical examination by a reputable physician on blanks provided by the State Department of Education for this purpose
4. A confidential report from the high-school principal
5. A personal interview in order that a check-up could be made of such personality factors as language handicaps, excessive physical defects, etc.

Comparisons between 1930 freshmen and those of 1931 revealed that the latter class was sufficiently superior to justify the continuation of the policy outlined above. Apparently the fact that it is difficult to enter the college seems to inspire better high-school students to strive for entrance. In order to determine the extent to which the different measures used for selecting students predict success in teaching, Hertzberg (131) also made a study of those students of the 1930 freshman class who did their practice teaching the first semester of their sophomore year. Fifty-eight student teachers were available. Assuming practice teaching as a criterion of success, the correlations shown in Table 3 were:

TABLE 3.—CORRELATIONS BETWEEN PRACTICE TEACHING SUCCESS AND CERTAIN VARIABLES, AFTER HERTZBERG (131)

Variable	Criterion	Correlation
Regents average .....	Practice Teaching	.23
First semester scholarship .....	" "	.17
Thurstone Personality Schedule.....	" "	.10
First and second semester scholarship average.....	" "	.14
Second semester scholarship.....	" "	.07
Ohio State University Psychological Test.....	" "	.03
Sones-Harry High School Achievement Test.....	" "	.02
Reading ability .....	" "	.01

Hertzberg concluded:

It is obvious that not one of the above correlations is high enough to have any significance for predictive purposes. Numerous explanations may be advanced for findings of this nature. The writer wishes to suggest the possibility that one reason for the low correlations may be found in the methods by which practice teachers are graded.

In testing the predictive reliability of various requirements for admission to teacher-training institutions, the correlation technic has been used quite extensively. While these in general have failed to reveal any significant relationships, Butsch (106) and Jordan (138) indicated that by means of multiple correlation technics it is sometimes possible to obtain coefficients which seem sufficiently high to justify their use in prediction of teaching success. C. M. Frasier (120) had some success in predicting results by using the regression equation. Of the recent studies testing the reliability of pretraining factors by means of the correlation technic, that by Kriner (139) is undoubtedly one of the most thoroughgoing and interesting. His study is distinctive in that it began with teachers who have demonstrated their ability in teaching. He then attempted to find out how these teachers might have been discovered in their high-school training period. Factors considered were: the choice of secondary-school subjects, vocational interest, health, extra-curriculum activities, habitat, amount of work in various secondary schools and departments, amount of interest in teaching, amount of extra-curriculum activities, travel and unique experiences, occupational experiences, grades in secondary school, rank in secondary school, family background (size, parents living, father's occupation) number of school transfers, and length of time expected to teach. Correlations with 106 items were computed for both elementary- and secondary-school teachers.

While most of these correlations were not highly prognostic, the stamina to continue the study of high-school Latin and mathematics beyond two units; the completion of two units of science; scholastic rank in the upper half of the secondary school; and the continuance of interest in the teaching profession from the upper elementary grades through the secondary schools, substantially predicted teaching success. Table 4 gives a few of Kriner's correlations.

Kriner's study (139) is a part of a very interesting five-year study that is being made at State Teachers College, California, Pa. (140). The study will not be completed until the present students in training admitted in 1931 are placed in teaching positions and rated as to their success. The thesis back of this five-year study is that the diagnosis of traits for the selection of students for teacher education must result from expert judgment and not from a mathematical formula, or by accepting only applicants who stand above a certain predetermined fixed point of some criterion. "The difficulty in determining what constitutes both teaching success and teacher success is recognized. Certainly when a student has succeeded in the

TABLE 4.—CORRELATION BETWEEN TEACHING SUCCESS AND CERTAIN  
VARIABLES, AFTER KRINER (139)

Factors	Elementary teachers	High-school teachers
Latin carried in secondary schools.....	.354	.217
French carried in secondary schools.....	—146	—127
Mathematics carried in secondary schools.....	.171	.139
Cicero in secondary schools.....	.500	.418
Virgil in secondary schools.....	.543	.300
Latin beyond two units.....	.500	.418
Mathematics beyond two units.....	.447	.416
Social studies beyond two units.....	—335	—168
Sciences beyond two units.....	.177	.615
Chemistry in secondary schools.....	.270	.157
General science in secondary schools.....	—267	—193
Grades received in secondary schools.....	.425	.272
Rank top half secondary school class.....	.875	.471
Secondary-school interest in teaching.....	.644	.524
Elementary-school interest in teaching.....	.491	.522
Secondary-school plan teaching as career.....	.701	.608
Secondary-school plan teaching as "stepping stone".....	—224	—298
Did not expect to teach.....	—190	—492
Fathers as business men.....	.564	.077
Fathers as farmers.....	.000	.361
Fathers as laborers.....	—484	—017

classroom teaching process there is something else in a social and cultural way demanded of a teacher in every community. This study hopes to include the broader scope."

Other interesting experiments are being carried out at Colorado State Teachers College, Greeley, Colo., by G. W. Frasier (121); at Bellingham State Normal School, Bellingham, Wash., by Upshall and Masters (166, 167); and at Spearfish State Normal School, Spearfish, S. Dak., by Skarsten (152). Hagie (125) presented data concerning selective admission technics in seventeen teacher-training institutions.

Douglass (116), G. W. Frasier (121), and Frazier (123) found that patterns of high-school subjects are not as yet justifiable bases for admission to college, unless other factors are considered. Music talent tests do not predict teaching success as well as they forecast teaching failure, according to Tilson (159). They do help to eliminate those who have small chance of making good. Several investigators, including Hill (133), F. A. Irwin (134), H. N. Irwin (135), Jarman (137), and Snyder and Alexander (154) advocated lengthening of the period of training and a delay in the final selection of teaching candidates. A number of reports dealt with the possibilities of tests of various types, including tests of intelligence, achievement, aptitude, and personality (96, 98, 121, 143, 147, 149, 150, 152, 162). The states of Ohio and Wisconsin have sponsored elaborate testing programs in the high schools. Henmon and Holt (127), Bragdon (99), and Toops (160) presented evidence of contributions made to the guidance of high-school students in these two states. Although intelligence tests have been used quite widely as one of the hurdles that prospective students are



required to leap, there is no agreement as to their worth. After extensive research Broom (103) questioned the advisability of using present mental tests to predict potential teaching ability. Toops (161), on the other hand, believed that intelligence tests are very helpful, although they have not correlated well with teaching success in the past. According to Toops (160) in Ohio, high-school students desiring to enter the occupation of teaching must be able to pass the 31-percentile standard on the statewide tests.

Rainey (150) stressed the need for improved teaching aptitude tests. Similarly other tests have definite possibilities, including professional tests which are recommended by Tiegs (158) and personality rating systems stressed by Bowman (98), Castleman and others (108), Hagie (126), and Hertzberg (130).

For a careful study of technics employed in the analysis of the problem of teacher selection, the reports of Kriner (139) and Ullman (165) especially should be consulted. They made important additions to previous studies like those of Knight, Tiegs, and Whitney.

### Summary

After studying the present status of pretraining selection of teaching candidates, one must admit that much remains to be done. As Bowman (98) says, "We need either better tests of scholarship and intelligence; the construction of more effective tests of other factors which may be significant in teaching success; more reliable criteria; or all three of them." At least four problems demand further study and research.

1. A more scientific evaluation of what constitutes teaching success.
2. Careful determination of qualities or factors requisite for, or related to teaching success.
3. Improvement of technics for measuring these factors to insure higher reliability in the prediction of teaching success.
4. Improved articulation between high-school and teacher-training institutions in the guidance of high-school students.



## CHAPTER IV

### The Preparation of Teachers

#### Quantitative Studies of Preparation

THE most important and complete study of the actual level of training of teachers in the United States is that of the National Survey of the Education of Teachers (219). Table 5 gives the percentage distribution of preparation for elementary, junior high-school, and senior high-school teachers, for the school year 1930-31.

TABLE 5.—HIGHEST LEVEL OF TRAINING OF TEACHERS IN PUBLIC SCHOOLS OF THE UNITED STATES, SCHOOL YEAR 1930-31

Level of training	Elementary school	Junior high school	Senior high school
Graduate of elementary school only.....	.3	.2	.1
One year of high school.....	.2	.1	.1
Two years of high school.....	.5	.2	.1
Three years of high school.....	.7	.3	.1
Four years of high school.....	4.0	1.1	.5
Six to twelve weeks of college.....	3.6	.6	.2
Half year of college.....	2.4	.4	.2
One year of college.....	14.5	3.2	1.1
Two years of college.....	46.2	17.5	4.4
Three years of college.....	15.5	16.0	6.1
Four years of college.....	10.2	43.7	58.1
One year of graduate work.....	1.3	12.1	20.2
Two years of graduate work.....	.4	3.1	6.9
Three years of graduate work.....	.1	.8	1.5
More than three years of graduate work.....	.1	.7	1.4
Number involved .....	248,658	36,186	84,767

Data were also furnished on the training of elementary-school teachers by size of school and community. It was found that the following percentages of teachers have two years or more of training: one and two teacher schools, 38.2; three or more teacher schools, 71.6; villages of less than 2500 population, 79.0; cities of 2500 to 9999 population, 87.5; cities of 10,000 to 99,999 population, 89.5; cities of 100,000 population or over, 90.8.

Slightly different figures were furnished by Floyd (186) in his study of a sampling of junior high-school teachers. He reported 1.70 percent with high-school education only, and the following percentages for the indicated years beyond high school: one year, 2.80; two years, 13.21; three years, 13.65; four years, 47.90; five years, 12.47; six years, 3.39; seven years, 1.62; eight years, 1.18; median, 4.37 years. Detailed figures were given in a study of the teaching personnel of Iowa, indicating the percentage of teachers for every amount and type of training (225). The per-

centages with two or more years above high school were: rural, 9.1; city elementary, 72.7; junior high school, 88.7; senior high school, 98.6. The percentages with four or more years above high school were: rural, 0.7; city elementary, 6.1; junior high school, 55.5; senior high school, 77.0.

The National Survey of Secondary Education (185) gave the training of teachers in terms of degrees only, as follows: without degrees, 13.8 percent; bachelor's degrees, 84.9 percent; master's degrees, 5.0 percent. For high schools selected as outstanding, the percentages were: without degrees, 5.5; bachelor's degrees, 82.3; master's degrees, 12.1. Koos (206) furnished similar data for the private and public secondary schools of Minnesota. For the smallest size group he found the following percentages: without degrees, private, 3.0; public, 11.9; bachelor's degrees, private, 81.3; public, 85.9; advanced degrees, private, 15.6; public, 2.3. For the intermediate size group: without degrees, private, 8.7; public, 19.1; bachelor's degrees, private, 68.0; public, 77.5; advanced degrees, private, 23.3; public, 3.1. Floyd's data (186) on this point for junior high-school teachers are as follows: no degree, 31.51 percent; bachelor's degree, 60.15 percent; advanced degrees, 7.83 percent. Studies have also been made of the training of teachers in Arkansas (232), Georgia (181, 194), Missouri (215), New Jersey (212), New Mexico (178, 200), Oklahoma (204), Texas (200), and the private schools of the North Central Association (230).

### Where Teachers Obtain Their Training

A study (225) of Iowa teachers reported on the percentages of teachers who obtained their training in certain types of institutions. These data are summarized in Table 6.

TABLE 6.—SOURCE OF TRAINING OF IOWA TEACHERS, AFTER PETERSON AND OTHERS (225)

Source of training	Rural	City elementary schools	Junior high schools	Senior high schools
Outside state .....	5.8	12.6	29.4	19.0
State Teachers College.....	60.5	48.8	20.4	15.6
State University .....	2.4	4.9	9.0	14.4
State College .....	2.1	1.7	5.3	11.0
Independent colleges .....	29.2	32.0	35.8	40.1

The elementary teachers in Minnesota obtained their training as follows (216): State University, 1.6 percent; state teachers colleges, 51.9; private schools, 1.9; high-school teacher training, 29.5; high school only, 2.3; out of state, 7.2. All of those with high-school teacher training were teaching in the rural schools; the largest cities showed a much higher percentage of teachers from out-of-state schools. Plenzke and Doudna (226) found that high-school teachers in new positions in Wisconsin obtained their training

in the following types of institutions: teachers colleges, 41.1 percent; State University, 19.1; state colleges, 18.3; colleges out of the state, 21.1.

### **Professional Courses for the Preparation of Teachers**

*Courses offered*—Thorpe (240) reported that the following are the professional subjects most frequently offered in sixty North Central Association institutions training teachers: educational psychology, offered by 60; special methods, 59; practice teaching and observation, 58; tests, measurements, and statistics, 57; history of education, 53; administration and supervision, 48; secondary education, 45; general methods, 42. Ullrich (242) reported the number of different courses in six fields of education offered by fifty universities and colleges in 1921-22 and in 1931-32, as follows: school administration, 320 in 1921-22 and 778 in 1931-32; educational psychology, 327 and 707; curriculum, 38 and 124; supervision, 35 and 124; history of education, 163 and 219; educational sociology, 41 and 72; philosophy of education, 35 and 71. Meriam (214) examined the catalogs of fourteen state universities to discover the graduate courses offered in education. He found that two general divisions, principles of education, and educational administration, are offered by ten of the schools; history of education and educational psychology are offered by nine; no other groups are found in as many as one-half of the institutions.

*Courses required*—Thorpe (240) reported the following subjects as those most frequently required in sixty institutions of the North Central Association: educational psychology required by 53; practice teaching and observation, 48; special methods, 38; secondary education, 30; general methods, 29; tests, measurements, and statistics, 26. Kyte (207) found that in thirty-nine state teachers colleges and normal schools in twenty-three states the most frequently required course was observation and practice teaching. Of the general professional courses, principles of education and educational psychology were most frequently required. Blauch (176) studied the requirements in thirty-five liberal arts colleges. Only five educational courses were required by eight or more institutions. Educational psychology stood first on the list, being required by twenty-seven. Peik (223), as a part of the National Survey of the Education of Teachers, analyzed the catalogs of forty-five universities and colleges to find the educational prescriptions for teaching certificates. Those courses at the head of the list were: educational psychology, prescribed by 78 percent; general psychology, 73; special methods, 60; general methods, 48; student teaching, 42; secondary education, 40.

*Courses actually taken by prospective teachers*—As a part of the National Survey of the Education of Teachers analyses were made of the transcripts of the graduates of certain teacher-training institutions. Rugg (233, 234) reported the percentage of each of several types of teachers who had taken certain professional courses. Those courses with the highest percentages are listed in Table 7.

TABLE 7.—PERCENT OF TEACHERS TAKING CERTAIN COURSES, AFTER  
RUGG (233, 234)

Courses	Academic majors	Special subject majors	Education majors
Educational psychology .....	90	84	83
General survey courses .....	75	79	78
Student teaching .....	82	93	93
History of education .....	51	36	43
Special methods .....	61	53	41
Secondary education .....	40	39	28
Tests and measurements .....	37	39	41

A similar analysis by Peik (223) for graduates of colleges and universities indicated the percentages of such teachers who had taken certain courses as shown in Table 8.

TABLE 8.—PERCENT OF TEACHERS TAKING CERTAIN COURSES,  
AFTER PEIK (223)

Courses	Academic majors	Special subject majors
Educational psychology .....	85	75
General psychology .....	76	65
Special methods .....	64	87
Student teaching .....	62	79
General methods .....	60	44
History of education .....	58	51
Principles of education .....	45	31

A committee of the American Association of University Professors (247) reported that out of 258 teachers of academic subjects, 246 had taken methods courses, for an average of 5.8 hours; history of education, 229, average 3.6 hours; educational administration, 153, average 3.5 hours; educational psychology, 240, average 5.2 hours; practice teaching, 165, average 3.2 hours. The mean number of hours of professional courses for teachers with bachelor's degrees was 23.9; for those with master's degrees, 34.7; for teachers of special subjects, 28.4. Floyd (186) in his study of junior high-school teachers reported the percentages who had had certain professional courses. Those with the highest percentages were: history of education, 80; practice teaching, 79; special methods, 72; educational psychology, 70; secondary education, 54; educational measurements, 42; the junior high school, 40. Wright (248) found that graduates of teachers colleges had much more work in education but less in cultural subjects than had graduates of the schools of education in universities, and of colleges. Similar analytic studies have been reported for teachers in Georgia (177), in Tennessee (202), and in West Virginia (209).

Preparation Required for Certification

Bachman (173, 174, 175) reported studies of the certification requirements for elementary teachers and for secondary teachers. The minimum requirements for elementary certificates are shown in Table 9.

TABLE 9.—NUMBER OF STATES HAVING CERTAIN MINIMUM REQUIREMENTS FOR ELEMENTARY TEACHING CERTIFICATES, AFTER BACHMAN (174)

Minimum Requirements	No. of states issuing certificates	
	On examination	On credentials only
No scholastic requirements.....	8	
High-school graduation.....	5	
Graduation from teacher-training high school.....	2	1
High-school graduation and four to six semester hours of special preparation.....	2	2
High-school graduation and one year of special preparation.....	5	7
High-school graduation and two years of special preparation.....	1	7
High-school graduation and three years of special preparation.....		6
High-school graduation and four years of special preparation.....		1

For secondary certificates, only four states prescribed all professional work with hours in each subject specified; thirteen prescribed only the total hours; eleven prescribed at least half the professional work. The courses most frequently required were: directed teaching, 21 states; educational psychology, 18; principles and technic of high-school training, 14. The number of hours in professional courses varied from 10 to 24, with thirty-three states requiring from 15 to 18. Where certificates were granted by institutions, the number of hours varied from 15 to 36, with the median at 20. The most frequent subject prescriptions were: educational psychology, 39; principles and technic of high-school teaching, 36; supervised teaching, 38.

A committee of the American Association of University Professors (247) reported that the professional requirements for certification varied among states from 6 to 47 semester hours. Twenty-nine states required from 13 to 18 semester hours; the average was 17 hours, of which an average of only 6.6 hours were in specified courses. Twenty-three states specified observation and practice teaching; 14, general and special methods; and 28 one or the other; 18 states specified educational psychology. Not more than eight states agreed on any other subject specification. The average of judgments by teachers with bachelor's degrees was that 14.7 hours of professional courses would be adequate, and 19.1 would be profitable; for teachers with master's degrees the averages were 15.2 and 17.8; for special teachers, 15.8 and 22.4. The committee recommended that the requirement be set at twelve semester hours.



## **Preparation Required for Appointment in Cities**

The National Education Association gathered data concerning the educational qualifications required of newly appointed teachers in 1930-31 in cities of over 2500 population (218). For elementary teachers 2.8 percent of the cities required one year beyond high school; 74.7 percent, two years; 16.1 percent, three years; and 6.1 percent, four years. For junior high-school teachers, 23.8 percent of the cities required two years; 24.5 percent, three years; 50.2 percent, four years. For senior high-school teachers, 94.6 percent of the cities required four years; only 1.9 percent less than four years, and 3.5 percent more than four years. A comparison with similar data for 1928 indicated that the standards for all types of teachers have been increased materially.

## **Provision for Preparation for Particular Types of Positions**

Bachman (172, 173) reported that the following percentages of teachers colleges or normal schools (one for each state) provide each type of curriculum: kindergarten, 4; kindergarten-primary, 52; primary, 40; intermediate grades, 63; intermediate-upper, 8; upper grades, 31; general elementary, 33; rural, 42. Rugg (235) reported that the following curriculums, in order, are found most frequently in teachers colleges: kindergarten-primary, intermediate, rural, upper grades, English, mathematics, biology, music, geography, history, physical education for women. Thorpe (240) found that out of sixty teacher-training institutions in the North Central Association the following numbers offered special curriculums in the fields listed: rural, 6; kindergarten-primary, 14; intermediate grades, 8; junior grades and junior high school, 9; senior high school, 29; general elementary, 14; general, 33. The following numbers offered courses in each field: rural, 23; kindergarten-primary, 35; intermediate grades, 20; upper grades and junior high school, 37; senior high school, 60; general elementary, 47; general, 60.

Grinnell (191) after examining the catalogs of 150 schools reported that 72 percent of universities and professional colleges, 16 percent of liberal arts colleges, and 80 percent of teachers colleges and normal schools made some provision for training junior high-school teachers, either in general or in special courses. Floyd (186) found that the following percentages of the institutions indicated had set up curriculums for the preparation of junior high-school teachers: teachers colleges, 58 percent; normal schools, 20; universities, 20; colleges of liberal arts, 0. Of the junior high-school teachers for whom he had reports, only 19 percent had completed a junior high-school curriculum.

Complete and detailed studies of the prescriptions for teachers at various levels and for teachers of various subjectmatter fields were made by Rugg (233) for teachers colleges and normal schools, and by Peik (223) for colleges and universities, as a part of the National Survey of the



Education of Teachers. Peik (222) in summarizing this study reported that majors ranged from 12 semester hours in one botany prescription to 80 in one music prescription. The median was 27 semester hours for academic subjects, and 36 for special subjects. The number of fields of knowledge and culture required of prospective teachers ranged from 2 to 9, with the mean at 6.4. Those fields most often required were: physical education, 100 percent; English, 95 percent; language, 85 percent; science, 81 percent; social studies, 77 percent; and psychology, 62 percent.

Studies have been reported dealing with the particular problems involved in the training of junior high-school teachers (187, 205); teachers of exceptional or handicapped groups (210, 237, 239); and teachers of the following subjects: agriculture (182, 245); vocational agriculture (201, 238); English (244); foreign language (213, 227); Latin (236); home economics (239); industrial arts (193); mathematics (184); science (198); general science (229, 246); social science (195); physical education (171, 190); physical education and science (217); arithmetic (243); geography (211); and public-school music (197).

### **Relationship between Preparation and Position**

A study of nearly 4000 teachers in Oklahoma (199) indicated that the following percentages are not teaching in the fields for which they were prepared: open country, 20.4 percent; villages of less than 2500 population, 14.8; cities of 2500 to 9999 population, 14.8; cities of 10,000 to 99,999 population, 13.8; cities of over 100,000 population, 18.1; the state at large, 14.6. Broxson (179) indicated that of the graduates of the primary curriculum in the Alabama normal schools, 75.6 percent were teaching exclusively in the primary grades; 3.6 percent were doing most of their teaching in these grades; 2.5 percent were doing most of it out of these grades; 18.3 percent were teaching in intermediate grades or in junior or senior high school. Edmonson (183) found that of the graduates of the intermediate curriculum in Alabama normal schools only 52.9 percent were doing all or a major part of their work in the intermediate grades; 30.5 percent were teaching in the grades below, and 16.6 percent in the grades above. Carney (180) reported that in a study of the education of teachers in one- and two-room rural schools, it was found that 37 percent had prepared for other fields of elementary-school teaching; 14.7 percent for intermediate grades; 9.0 percent for kindergarten-primary; 6.7 percent for upper grades; 3.3 percent for junior high school; 2.6 percent for senior high school.

### **Contents of Particular Courses**

Numerous studies have been reported of the contents and aims of the various professional courses, such as the general introductory course (188, 208, 220, 228); psychology (196); educational psychology (231); history of education (203); tests and measurements (192, 221).

Reinhardt (228) found, for example, that 45 out of 63 teachers colleges offered an introductory course under many titles for periods varying from two to five hours per week and from six to thirty-six weeks. The topics treated with greatest frequency were: history of education, the teacher, teaching as an occupation, the child, the teaching process, and the learning process. Rose (232) found that only a small proportion of the topics were considered worthy of emphasis by a majority of 96 institutions in 38 states, with the greatest frequency on teaching as a profession, and teacher relationships. Osburn (220) examined three leading textbooks in the field and found that out of 2711 different items there were only 26 items common to all three, and only 158 common to any two books.

### **Adequacy and Relative Value of Courses**

Peik (224) made a careful analysis of the educational courses included in the professional curriculum required for a secondary-school certificate at the University of Minnesota. He found 814 different topics and tabulated the frequency of regular treatment, of incidental treatment, of reading assignments, and the total time allotment to each. He obtained reactions on each topic from 100 alumni on the basis of: recall, practical value, theoretical value, "would omit," and "treatment inadequate." By combining the scores on the topics treated in the various courses he obtained for each course a measure of practical value and of value in educational thinking. These were combined to form an "index of functioning value." The following indices were thus obtained: special methods, 88.16; educational psychology, 81.67; technic of high-school instruction, 77.99; educational sociology, 68.15; the high school, 61.87; history of education, 48.88. Tostlebe (241), using part of the same technic, obtained reactions from rural-school teachers who had had the one-year rural course in a normal school in South Dakota on the 135 topics he listed from the courses.

Gilchrist (189) compiled a list of 77 items included in the curriculum of secondary-school teachers. When these were checked by 223 secondary-school teachers and principals it was found that they feel most inadequately trained in the following: teaching pupils how to study, extra-curriculum activities, supervising study of pupils, educational and vocational guidance. The graduates of teachers colleges checked for inadequacy most frequently principles and organization of secondary education; graduates of liberal arts colleges checked tests and measurements. According to a committee of the American Association of University Professors (247) the average ranks on the basis of relative value assigned by teachers to various courses in education (1 being high) were: practice teaching, 2.11; methods, 2.18; educational psychology, 2.45; educational administration, 3.36; and history of education, 3.81.

## CHAPTER V

### Teacher Selection and Placement

#### Responsibility for Selection and Appointment

DEFFENBAUGH and Zeigel (261) found that less than 2 percent of the boards of education included in the National Survey of Secondary Education appointed teachers without the official participation of the superintendent. In 16.8 percent of the systems the superintendent nominated all teachers for committee approval, in 30.4 percent he nominated them directly to the board, and in 24.6 percent he appointed secondary teachers subject to board approval. Other methods used in 3 percent of the systems were automatic selection from eligible lists, employment by personnel committee or employment director, and final appointment by superintendent without subsequent board action. It was the function of the board of education, however, to determine school policies with respect to selection and appointment.

Johnson (275) reported that four-fifths of the superintendents in the smaller systems of Minnesota selected the teachers subject to approval by the boards of education. Jacobsen (272) stressed teacher selection as a vital responsibility of the superintendent.

#### Means of Making Contact

Almost one-third of the new high-school appointments and more than one-half of the new elementary and junior high-school appointments in 1931 were made as the result of applications from individual teachers, according to Deffenbaugh and Zeigel (261). Douglass (263) warned against limiting appointment to those who apply, since many excellent teachers do not apply for positions. A trend toward personal applications in the college field was discovered by Umstattd (289).

Schultz (285) ranked thirteen methods of making the first contact with the applicant. Plans of contact were summarized by Engelhardt (264). Deffenbaugh and Zeigel (261) found that placement bureaus in higher educational institutions ranked next after personal applications as a means of making contact with candidates. Adams (249) reported a marked increase in recent years in the percentage of institutions maintaining placement service. Schultz (285) recommended further professionalization of such service through a code of ethics. Umstattd (290) found that college administrators in their selection of candidates patronized institutional placement offices markedly more in 1930 than they did in 1920 and that they used commercial agencies correspondingly less. All cities of more than 100,000 population reported the practice of keeping a file of desirable candidates. This practice prevailed in 89.6 percent of all incorporated cities and villages included in the study by Deffenbaugh and Zeigel (260).

261). Fifty-three percent of the city systems included in the study by the National Education Association (279) searched for teachers in other systems and 77 percent sought them in teacher-training institutions.

### **Technics in Selection and Placement**

Tiegs (288) criticized present technics of selection and stressed need of selection by trained workers. While the personal interview was used in "nearly all school systems both large and small" according to Deffenbaugh and Zeigel (261), and in 95 percent of the cities according to Potts (282), Corey (257), following the studies of Hull and Hollingsworth, discovered that the usual short interview was not reliable even under carefully controlled conditions. Corey recommended a second and longer interview and Stevens and Hamrin (287) recommended an objective form to aid in the interview. Jacobsen (272) reported that several interviews are required in some school systems.

The reliability of rating scales was studied by two investigators. Johnson (274) obtained positive coefficients of correlation ranging from .71 to .78 for ratings made by critic supervisors at the end of practice teaching and subsequent ratings by superintendents on the same scale. Brown (256) correlated two ratings of the same judges and obtained a positive correlation of .94 with one group of judges and .95 with another group. When her ratings by critic supervisors were correlated with those by superintendents, a coefficient of .43 was obtained.

Deffenbaugh and Zeigel (261), after summarizing the studies of the use of the photograph as a technic, concluded that "one should not assume, however, that the photograph has no value at all," but stated that its chief value was to give a general impression of the candidate. Vick (261, 292) found that the written recommendation was used in 90 percent of the selections in 176 Illinois schools. Rice (283) found that recommendations by previous employers were considered of great importance by boards. Weidemann (261, 295) attempted to standardize the letter of recommendation and Bosshart (253) reported the cooperation of New Jersey superintendents in supplying analyses of various aspects of teaching to guide subsequent selection.

One-third of the cities with populations above 100,000 required candidates to take special written examinations, according to Deffenbaugh and Zeigel (261). Physical examinations were required in 16.5 percent of the systems included in the study by the National Education Association (279). The same study found that 58.8 percent of the city superintendents reported the observation of classroom work of applicants as a technic in selection whereas Deffenbaugh and Zeigel (261) reported that 2.9 percent of the appointees in 1929 were observed in this manner before receiving appointments. In view of the facts that many vacancies occur after schools are closed for the summer vacation, that many applicants for city school positions are attending school, and that distance is a deterrent to observa-

tion of teaching, the latter percent is more likely to be correct than is the former. Umstadd (291) discovered that such data as measures of interests, social intelligence, attitudes or aptitudes were rarely used in credentials.

### **Factors Influencing Selection and Success of Teachers <sup>1</sup>**

Davis (258) analyzed the essential physical, mental, moral, and social traits of teachers and recorded the causes of failure of high-school teachers. In the reference blanks analyzed by Deffenbaugh and Zeigel (261) the ability to discipline occurred most frequently. Overn (280) studied the special requests of superintendents in their calls for teachers. Rice (283) found that board members preferred teachers from schools similar to their own and that they consider health, courage, energy, and ability to discipline, of importance.

The National Education Association (279) reported that in 1930-31 58.5 percent of the 1489 cities over 2500 in population required no experience, 18 percent required one year, 22.4 percent required two years, and that cities of more than 100,000 were less likely to require experience than they had been in 1922. All North Dakota cities with more than thirty teachers required at least two years of experience according to Ingvalson (271). Of the appointments made in 1929 in the schools included in this aspect of the National Survey of Secondary Education (261) 39 percent of the appointees to elementary positions were inexperienced while the percentages for junior and senior high schools were 29 and 22, respectively, whereas about one system in four appointed no inexperienced candidate. Inexperience operated less against women than against men according to Anderson (250).

In college appointments Umstadd (290) found that the proportion of appointees with doctorates increased between 1920 and 1930, and during the same period the ratio of men to women in the appointments increased in favor of men.

Relatives of board members are not permitted to teach in 7 percent of the cities studied by Deffenbaugh and Zeigel (261). The influences of political and religious issues were included in studies by Granrud (266) and McGinnis (276). About one-half of the Mississippi systems studied by Williams (296) favored regulations pertaining to social activities of applicants.

### **Management and Cost of Placement**

Adams (249) attempted to educe principles for the guidance of institutional teacher placement offices. Several nationwide studies (249, 254, 291) analyzed the organization, practices, and personnel of institutional teacher placement service. In 90 percent of the institutions studied by

<sup>1</sup> The question of local residents and married women as teachers is discussed in Chapter VI.



Adams (249), all or part of the cost of placement was met by appropriations from the general administrative fund, but the practice of charging a registration fee for the service was increasing. The median expenditure for placement work in 179 institutions was \$831.25 while the range was from nothing to \$25,000. Schultz (284) reported that the average cost to Ohio candidates placed by commercial agencies in 1929 was \$63.21. Umstatted (291) found that no charge was made by 58.2 percent of the institutions studied and that the median fee charged by others was \$2. The median budget for placement was \$1321 and that 26.9 percent of the bureaus had budgets below \$500. The median cost per placement by 63 institutional bureaus in 1931 was \$11.72. According to Schultz (284), in 1929 the average cost to the placement bureau per placement by nine institutional bureaus was \$17.73; by five state bureaus, \$14.94; and by three bureaus in educational associations, \$26.48.

Brogan (255) maintained that placement is an activity which should be conducted as a professional service in all teacher-training institutions. The function of selection and placement should begin when the student enters college. Actual placement is the last step of a series of guidance procedures.

Hooker (268) showed that 50 percent of 40,484 teachers were not qualified for their positions and stated that placement offices were in position to prevent much of this waste. Brogan (254) urged that the danger of invalidating good training be obviated by scrupulous care in placement. Anderson (250) and Brogan (255) stressed the research function of the bureau of recommendations. Schultz (285) considered evaluation of placement procedures an important function of placement offices.

### **Follow-up Service**

Schultz (285) found that four-fifths of the Ohio institutions gave follow-up service after placement. Bathurst (251) analyzed the follow-up service of one institution. Bosshart (253) described in-service training of new teachers. Floyd (265) stressed the need for a variety of means to insure professional growth of teachers after appointment. Deffenbaugh and Zeigel (261) studied the methods used in retaining teachers of high quality.



## CHAPTER VI

### Local Residents and Married Women as Teachers

THE problems of the married woman and the local resident as teachers are not unrelated, although no study of national scope has brought out the extent of their interrelation. In a recent investigation Cooke and Blackwell (304) found that 51 percent of the married women teachers in Texas were also local residents. In a discussion regarding the selection of teachers, Granrud (317) named several limitations to free selection based solely on the ability to teach, including the following: (a) the preference given by a majority of cities to local residents, and (b) the bias against married women. Many schoolboards have passed regulations against the employment of married women teachers, but the indications are that some boards do not apply such rulings to married women who are also local residents.

#### Policies and Practices Concerning Local Residents as Teachers

A study by the Research Division of the National Education Association (333) showed a preference (1930-31) for local residents in 58 percent of 1488 cities above 2500 in population. The proportion varied from 44 percent for cities of 2500 to 5000 population to 80 percent for cities of over 100,000 population, indicating that there was evidently a positive relationship between size of city and the proportion favoring home talent teachers. The National Survey of Secondary Education (308) found that local applicants were favored in 19 percent of the school systems studied and non-local in about 16 percent. Approximately 63 percent of the cities had no stated rule or preference. Undoubtedly a large part of the disparity between the 58 percent of the former study and the 19 percent of the latter must be attributable to differences in interpretation of such words as *policy* and *regulation* used to measure preference. Williams (349) found that 40 percent of the Mississippi school systems included in his study accepted applications for teaching positions regardless of where the applicants received their high-school training. No local residents were considered by 33 percent of the systems and only the outstanding residents were accepted in 27 percent of them. Schoolboard policies demanding that school officials make an effort to employ all local teachers were found by Peek (336) in fifty-five out of eighty-four Tennessee counties. In 1930 the Boston school committee took action barring all non-residents of the city from appointment as teachers (335). Probably other cities have approximated this action lately, in practice if not by manifesto.

#### Percent of Local Residents Employed as Teachers

Cooke (306: 291) stated: "A study of fifty typical city school surveys indicates that from 20 to 85 percent, or a mean of approximately 50 per-

cent, of the teachers in city schools are home-talent teachers." Holmstedt (319) found that approximately one-third of the 529 first-year teachers in Connecticut were local persons, as compared with 15 percent of the 973 first-year teachers in New Jersey. Since New Jersey has a state tenure law and Connecticut does not, "it is reasonable to conclude that tenure is a causal factor in this difference." While only 20 percent of the boards in Texas city schools had definite rules (1931-32) favoring the employment of home talent teachers, still Cooke and Blackwell (304) found that 47.5 percent of them favored the local residents in actual practice. As a matter of fact, 42 percent of the women teachers employed in 1931-32 were local residents, and the data revealed an increased preference for local residents during the depression.

### **Arguments Concerning Married Women Teachers**

Snedden (341) maintained that more schoolboards should give consideration to the many social consequences of employing married women, as is increasingly the case in industry. An editorial writer (297) said: ". . . the hard-headed board member is . . . unalterably set against the married woman teacher who has an able-bodied husband to support her, who teaches because she wants to escape the burdens of motherhood, who wants to help her husband increase his pile of worldly belongings, or who merely wants money for dress and fineries, and so on." Hornaday (320), a woman writer, said: "We do not claim that married women as a class are inferior to single women, but we do claim that no woman can do two tasks and do them equally well."

Those who champion the cause of married women teachers inveigh against discrimination, holding that "each case ought to be dealt with on its own merits" (318); that "inefficient teachers or those lacking professional training should be excluded whether married or single" (339); that "the object is to secure the best teachers available for the salaries, married or single" (311); that "so long as a teacher serves efficiently in the classroom the board has no right to inquire into her home life, any more than into her religious or political views" (326); that "there are as many reasons why an unmarried woman should not teach permanently as there are why a married woman should not" (350); that "the married woman question is a part of the larger one involving the traditional restriction of personal freedom among teachers" (314); that "discrimination between married women who support a family and those who are supported by a husband is opposed to the interest of the school" (339); that "to prefer an unmarried woman because she 'needs the work' . . . is almost as poor a reason as to prefer her because she is the niece of the mayor . . ." (325); that "in the selection of teachers shall the test of celibacy take precedence over the test of skill and experience in the profession and of general worth as a teacher?" (303); that "if there are those strong enough to handle successfully both the problems of a family

and the problems of a career, they should by no means be denied the privilege" (348); and that "if her marriage is to bar her from the classroom, this [state and other expense for her training] is a dead economic loss" (311). Bedwell (300) argued that "it requires years of training and the expenditure of thousands of dollars, followed by years of practice, to make an expert teacher." He asked, "Must all this time and capital be junked when the expert teacher does the perfectly normal thing of marrying . . .?"

### Married Women as New Teachers

In any consideration of practices and policies with reference to married women teachers it is necessary, as the Research Division of the National Education Association (333) pointed out, to explore two questions: (a) the employment of married women as new teachers, and (b) the treatment accorded women teachers who marry while in service. Incidentally, Reeves (338) listed nine different ways of handling the married-teacher problem, ranging roughly from complete rejection to impartial acceptance. In a study of national scope the Research Division of the National Education Association (333) found that in 1931, 23.4 percent of nearly 1500 cities above 2500 in population employed married women as new teachers in 1930-31. The figures for the different population groups varied from 20.3 percent, for cities of 10,000 to 30,000 population, to 31.3 percent for cities over 100,000 in population. A comparison with a similar study for 1928 (333, 334) indicated "a marked decrease in the consideration given to married women teachers by city schoolboards," the average percentage dropping from 39.0 percent in 1928 to 23.4 percent in 1931. The greatest decrease was among cities of 2500 to 5000 population, 46.9 percent of which employed married women as new teachers in 1927-28, as compared with 24.6 percent in 1930-31. In this connection, Goodrich (316) found in 1932 that 42 percent of 386 school systems (selection not indicated) had taken some action during the previous two years placing married women teachers in a less favorable position than they formerly held. Only 14 percent of these cities reported policies equally favorable to married women and to single women.

Gough (313: 167) found that 42.2 percent of 97 cities of 2500 to 5000 population in ten selected states employed married women teachers in 1927. The U. S. Office of Education (322) found in 1931 that half of 171 cities above 30,000 in population had some rule forbidding appointment of new women teachers who are married.

It was reported in the National Survey of Secondary Education (308) that wide differences existed in policies and practices with reference to married women teachers for different types of marital status, size of city, school level, and region. Average figures ranged from approximately 68 percent of school systems not employing (or 32 percent employing) married women without dependents to approximately 9 percent not employing

widows. Between these two extremes were 66 percent not employing married women with dependents and 30 percent not employing married women who are separated or divorced.

Using a definition of married women teachers which excluded widows, divorcees, and married women not residing with their husbands, Waits (345) found in 1931 that 56 percent of the cities and exempted villages of Ohio had rules against the employment of married women teachers, and that 73 percent were actually not employing such teachers. In another Ohio study in 1929, McCarroll (329) found that 50 percent of 70 school systems above 5000 in population had definite rules against employing married women teachers, and that an additional 10 percent had a bias against such teachers, but no rule. Cooke and Blackwell (304) found that 31 percent of 147 Texas cities of 2500 to 50,000 population had ruled (1932) against the employment of married women teachers as a class; in practice, however, 62 percent of the schools were discriminating against them in some manner.

In Washington, D. C., during 1927, the question of employing married women as teachers was made the subject of a citywide discussion and referendum among the parent-teacher associations and various civic groups (306, 321, 333). After much study and discussion, fifty-seven out of seventy organizations voted in favor of married women as public-school teachers and as normal-school students; seven voted in the negative, and the remaining six were noncommittal.

### **Teachers Who Marry While in Service**

The policies and practices of schoolboards are more favorable, on the whole, to women teachers who marry while in service than to married women applicants. The National Education Association study (333) of practices in 1930-31 revealed that in 37.1 percent of cities above 2500 population, single women teachers who marry while in service may continue to teach. The corresponding figure was 56.6 percent in cities above 100,000 in population. This is approximately one-half more than the percentage of cities which employed married women as new teachers. Of the remaining cities, 33.2 percent required the single woman teacher who marries to resign at once; 28.5 percent required her to resign at the end of the school year; and 1.2 percent made her continuance or dismissal optional with the board. During the period from 1928 to 1931, the percentage of cities retaining women who marry dropped from 49.2 percent to 37.1 percent, again indicating an increasingly less favorable attitude toward the married woman.

McGinnis (330) found that 60 percent of the boards in 255 cities of 25,000 or more population maintained the policy of not reelecting those women teachers who marry while in service, if they are not on permanent tenure. The U. S. Office of Education (322) reported in 1931 that women teachers were required to give up their positions immediately upon mar-

riage in one-third of 171 cities above 30,000 in population. It was reported in the National Survey of Secondary Education (308) that women who marry while in service are required to resign immediately in about 28 percent of the city-school systems. Cooke and Blackwell (304) found that single women teachers who marry while in service are compelled to resign at once in 45.6 percent of 147 Texas cities, ranging from 2500 to 50,000 in population. Waits (345) found that 30 percent of the village and city schools permitted women teachers who marry in service to continue teaching, while the corresponding figure for the rural schools was 66 percent.

### **Percentage of Married Women Teachers Employed**

Based on a study of cities of from 2500 to 50,000 population, Gough (313: 167) found the following percentages of married women for the states indicated (1928): Massachusetts, 14.6; Ohio, 13.8; New York, 12.1; Illinois, 10.6; Michigan, 10.5; Indiana, 10.0; North Dakota, 3.3; Iowa, 3.0; Wisconsin, 2.6. From inquiries to state departments of education and other sources, Cooke (305, 306) gathered the following state estimates of percentages of married women teachers employed: Alabama, elementary, 25, high school, 11; West Virginia, 18; Virginia, 15; Florida, elementary, 39.5, high school, 34; South Carolina, 28; Oregon, 35; North Carolina, 25. Cooke and Blackwell (304) found in 1931-32 that 20 percent of the teachers in Texas city schools were married women. Holmstedt (319) found approximately 11 percent of married women teachers in both New Jersey and Connecticut.

### **Legal, Contractual, and Regulatory Status**

It seems that no state has passed any specific legislation in regard to married women as teachers (298, 301, 333), although five states attempted in 1931 to establish laws against employment of married women teachers (323). Allen (298), Brubacher (301), Edwards (309, 310), and Trusler (344) analyzed court decisions relative to married women teachers in Indiana, Maryland, New Jersey, New York, Oregon, West Virginia, and the District of Columbia. On the basis of these decisions they reported that marriage *per se* is not a valid cause for dismissing teachers who are under contract or under tenure laws which permit dismissal only for certain specified causes. Even where the schoolboard in New York City passed a general rule declaring vacant a woman teacher's position, if she married, the courts held that such a board rule was in conflict with state tenure laws and consequently illegal and void (299, 324). A similar ruling was also made in Maryland where there was a contract clause specifying that "if a female teacher marries in any school year, she will be expected to resign at the end of the school year" (299, 327, 328, 333). On the other hand, the courts in Indiana and Wisconsin have held that a contract wherein a teacher promises not to marry is binding and can be enforced (309, 324, 344).



Anderson (299) found that 12 percent of 393 cities, which used teacher contracts, stipulated termination of the contract upon marriage or at the option of the board. These 37 cities were in 18 different states. However, the same writer calls attention to the fact that 30 percent of the cities above 100,000 in population do not issue formal contracts, and probably have no rule against married teachers already in the system. In another study of contractual status, Allen (298: 117) named as one of the guiding legal principles: "Boards of school control may reserve by contract with [the] teacher reasonable terms under which a dismissal may be made." At this juncture attention should be called to Reeves's (339) proposal to substitute a pregnancy clause for termination of contract rather than the usual marriage clause. In general, the contract of a married teacher who misrepresents her marital status is void because it was fraudulently obtained (306, 309, 310).

It is a moot question whether a married woman teacher working under a tenure law can legally be dismissed from service permanently because of absence occasioned by maternity. The classic illustration of this point is the case of Mrs. Bridget Peixotto of New York City, who appealed to the courts when the schoolboard peremptorily dismissed her for neglect of duty, after the birth of her child (301, 306, 325, 343). After several court reversals, a final decision was pronounced by the State Commissioner of Education who ordered the board to reinstate Mrs. Peixotto with back salary from the date of her dismissal. Commissioner Finley ruled that absences due to childbirth are logical consequences of employing potential mothers and may be classed as absence for personal convenience without pay. On the other hand, one of the courts reviewing the Peixotto case, and the North Dakota Supreme Court trying a similar case, held that absence from school for maternity constitutes a neglect of duty for which the teacher may be dismissed (309, 345).

Where boards of education retain married women teachers, either on account of tenure provisions or by virtue of board policy, leaves of absence are usually granted, especially during an era of enforced personnel reductions. A few illustrations are given by the National Education Association (333).

*Minneapolis:* Teachers must be absent from school service for four months before and one year after maternity.

*Long Beach:* Leaves of absence are granted to teachers who have taught successfully for at least four years in the Long Beach schools. A two-year leave of absence for maternity is required.

*District of Columbia:* Married women must request leave of absence by the fourth month of pregnancy and remain on leave until the child is nine months old.

*Perth Amboy, New Jersey* (331): Leave of absence is compulsory upon awareness of pregnancy and is for a minimum period of eighteen months. Such leave is not necessarily granted to married women not on permanent tenure.

Barnard College (332) has recently adopted as a permanent policy a provision granting leave of absence on account of maternity for one-half



year on full pay or one year on half pay to women members of the administrative or instructional staff.

### Relative Efficiency of Married and Single Women Teachers

The Research Division of the National Education Association (333, 334) found that "little scientific evidence is available concerning the relative teaching efficiency of married and unmarried women." Moehlman made an analysis of the principals' ratings of the married and the unmarried women teachers in Detroit for the year 1920-21. He found that 86.5 percent of the married women ranked B— or better, as compared with 81.6 percent for all women teachers. Moehlman also found that 60.7 percent of Detroit's married women teachers gained in efficiency rating after marriage, 25.3 percent remained stationary, and only 14 percent lost in rank. In 1924, Carrothers (302) found that married women teachers in Cleveland were subject to more illness, on the average, than were single women teachers. The average number of days of illness for 2948 single women was 5.1; for 533 married women it was 6.6. In 1926 the *American Educational Digest* (now *School Executives Magazine*) (312) obtained a reply from 954 superintendents, representing every state in the Union, to the question: "Are married women with equal training and experience as efficient as unmarried?" Sixty-three percent of the superintendents answered, *yes*; 18 percent, *no*; 4 percent, *more efficient*; and 15 percent of the replies were conditional.

In 1928, Goodier (315) studied the absences of 80 single and 15 married women teachers in one school district for the five-year period, 1923-28, and their professional study for the two consecutive years, 1926-28. The married women were absent more than the unmarried in four out of the five years. For the school year, 1926-27, 24 out of 80 unmarried teachers continued their work at higher educational institutions; one out of the 15 married teachers did likewise. For 1927-28, 31 out of 78 single teachers continued professional studies, and one out of 17 married teachers did the same.

Cooke and Shanks (307) reported in 1932 a comparative study of 360 single and 360 married women teachers who were teaching the same type of work in the same type of school in a city of over 100,000 population. They found that "in six of the nine factors investigated, including the most important one, namely, the achievement of (3000) pupils, there is scarcely any arithmetical difference between the efficiency of the two types of teachers." The single women teachers attended summer school more often and were absent less frequently than the married women teachers.

In 1932, Waits (347) found no marked difference in pupil achievement, measured by educational tests of equated pupils, for 65 single and 65 married women teachers matched in age, training, experience, and teaching situation. In the following year he (346) reported the findings of a questionnaire, sent to 75 sociologists, on the social phases of the employment of married women teachers. Of the 43 who replied, 77 percent gave

unqualified approval to the employment of married women, based on considerations of social efficiency.

### World Status of Married Women Teachers

In 1932, the International Bureau of Education (337) sent out a comprehensive questionnaire regarding the status of the married woman teacher in the various countries of the world. Replies were received from 42 countries and have been published by countries (323, 342). The following résumé of a few items represents a liberal translation of excerpts from the *Aperçu Général* of the published report.

Worldwide unemployment and governmental personnel reductions have resulted in unfavorable policies toward married women teachers in many countries. Following are some of the measures which have already affected the married women teachers, as reported by the ministers of public instruction. *Esthonia* has decreed that for the two years beginning April 1, 1932, if either husband or wife receive as much as 140 crowns per month in the city or 80 crowns per month in the country, one of the two will have to leave the service. *Silesia*, independent province of Poland, by its law of March 29, 1926, closed the avenue of teaching to married women. *New Zealand* has applied a rule very rigidly since 1932 barring every married woman from the profession of teaching. *Tasmania* has required the cessation of service of married women teachers whose husbands are able to support them. In *England*, decisions of local committees against the employment of married women teachers increased during the years 1922-26. In 1927, *Bulgaria* ordered every married woman teacher to quit teaching at the end of twenty years of service. *Hungary* cut the salaries of the married women teachers and has announced that, if the husband and wife are both employed in the public service, the wife's allowance for lodgings is to be reduced to the extent of 50 percent. In *Argentina*, the leave of absence for maternity, which was 60 days, has been reduced to 45 days, for the sake of economy.

In several countries, although official decisions have not been declared, a movement against the employment of married women teachers has been under way. This is the case in *Canada* (*Prince Edward Island, Saskatchewan, Manitoba*) and in *Ireland*. In *Latvia*, a scheme against the employment of married women teachers was presented to Parliament, but was rejected. In *Czechoslovakia*, a similar move was also squelched, thanks to the women members of Parliament. In *Switzerland*, several legislative enactments unfavorable to married women teachers have been attempted (for example, in *Berne* and *Geneva*). On the other hand, in *Cape Province, South Africa*, the married women teachers whose husbands are without work or have suffered economic reverses, have been authorized to apply for employment.

In contrast to the emergency measures enumerated above, many instances of continued favorable treatment of married women teachers are cited. For example, maternity leaves of absence with compensation are often granted. In *Germany*, such leaves are granted for 17 weeks, 10 weeks with full pay and 7 weeks with half pay. In *London*, the maternity leave is also 17 weeks, 8 with full pay and 9 with half pay. Then come next in order: *Holland*, with 5 or 6 months on half pay; *Hungary, India, Latvia, Czechoslovakia*, and the canton of *Valais, Switzerland*, with 3 months on full pay; *Denmark*, with 4.5 months on half pay; and *Mexico* with 4 months on half pay. In *France*, married women teachers without children, having a minimum of 15 years of service, may lay claim to a retirement pension with deferred benefits; mothers of three living children have the right to a pension to take effect immediately; finally, the married women teachers have the right to an allowance on age and service of a year for each child which they have had. In *Uruguay*, the woman teacher with children is authorized to take 30 minutes from her work each day for nursing. In *France, Poland, Uruguay, Yugoslavia, Roumania, Colombia, Egypt, and Turkey*, legal provisions for keeping married couples together in official government service, including teaching, exist.

## CHAPTER VII

### The Improvement of Teachers in Service

IT has long been recognized that the institutional training of teachers is subject to serious limitations and that the primary function of a supervisor is to promote the continued training and professional growth of teachers in service. On the other hand, institutional responsibility for the follow-up service of its graduates has not been widely accepted in this country. There is, however, a growing interest and activity in this extended form of the institutional training of teachers. The extent, character, and effectiveness of these follow-up and in-service supervisory activities in improving teachers, as reported in recent educational literature, will be reviewed in this chapter.

#### Institutional In-Service Training of Teachers

*Extent of follow-up service*—Higbie (362) reported, on the basis of a questionnaire study of 131 teachers colleges and normal schools, that 21 had no organized follow-up service; 62 an incidental service, and 48 no service of this type. Conger (357) reported, on the basis of a questionnaire study of 248 departments of education in liberal arts colleges, that 66 percent had some form of follow-up service. In addition to some form of placement service, 41 institutions reported part- or whole-time supervisors, and 31 institutions reported one or more staff members relieved for part-time visitation. Brown (355), in a study of 28 colleges and universities, reported six of these institutions as conducting an organized follow-up service exclusive of extension courses.

*Types of follow-up activities*—Brown (355), Bathurst (353), Conger (357), and Emerson (359) reported the following supervisory activities: classroom visitation; general teachers' meetings; group teachers' meetings; institutes; bulletins and circulars; library service; community activities; demonstrations; correspondence; placement; and extension courses.

*Effectiveness of follow-up activities in improving teachers*—Emerson (359) reported that an evaluation of the effectiveness of in-session and out-of-session courses for the improvement of teachers in service by teachers, supervisors, and directors yielded results in order of decreasing merit as follows: regular session courses; summer session courses; evening and part-time session courses; extension courses; and correspondence courses. Field activities were classified and evaluated in the following order: supervisory group activities, general teachers' meetings, and teachers' institutes. Brown (355) reported an evaluation of the effectiveness of institutional in-service training of teachers as determined by approximately one thousand teachers and administrators as follows: extension courses; corre-

spondence courses; loan of visual aids; professional bibliographies; bulletins; and methods of research.

### **Supervisory In-Service Training of Teachers**

*Character and extent of the supervisory activities*—The most widely used activities reported by supervisors in the public schools are as follows: teachers' meetings; individual conferences; class demonstrations; visiting other teachers; professional reading; testing the pupils; experimentation; group conferences; curriculum making; stenographic reports; and teacher rating. Balliette (351), Garretson (361), Lange (366), Nystrom (369), and Reppen (372) all used teachers' meetings, class demonstrations, and inter-visitation of teachers as a means of improving their teachers. Balliette (351) and Lange (366), in case studies of inexperienced teachers, used eight different supervisory activities. Garretson (361), after a questionnaire study of 64 high schools in one state, reported that six supervisory activities were stressed. Nystrom (369) reported that the supervisory staff of one city concentrated on five supervisory activities. Swenson (373) reported that a state program for the improvement of rural teachers consisted of class visitation and group conferences. Whitacre (374) reported a supervisory program consisting of seven supervisory activities for first-grade teachers in a city system. Paulu (370) reported a program of improvement for rural teachers in one county based upon teachers' institutes and group and individual conferences. A summary by the Department of Supervisors and Directors of Instruction of the National Education Association (367) of 77 individual projects initiated by supervisors and directors of instruction showed that the most widely used supervisory activities for improving teachers were: individual conferences, professional reading, demonstration teaching, and cooperative planning. In a survey of teacher rating in 668 cities, made by the National Education Association (368), 83 percent of the cities reported that the ratings were used to improve teaching. Cocking (356) used the stenographic report as a device to improve teaching and Kyte (365) used the stenographic report to demonstrate the effectiveness of individual conferences.

*Teaching difficulties*—As the result of a questionnaire study, Barr and Rudisill (352) reported the following ten difficulties of beginning teachers: control over pupils; provision for individual differences; presentation of subjectmatter; motivation; organization of work and teaching materials; conditions for work; measuring achievement; teacher and pupil participation in the recitation; making assignments; and adjustment by the teacher to the classroom situation. Difficulties which tend to decrease with experience are: control over pupils; presentation of subjectmatter; measuring achievement; the assignment; teacher and pupil participation in the recitation; and teacher preparation. The difficulty most frequently recognized by teachers upon added experience was provision for individual differences. Phillips (371), in a study of the difficulties of beginning

teachers, reported the following as the most serious: class management and discipline; the attitude of older staff members toward young teachers; and the apparent difference in outlook between one generation and another. Coxe and Cornell (358), in a questionnaire study of the teaching difficulties of normal-school graduates, reported the following: keeping all pupils working; provision for individual differences; discipline; teaching pupils how to study; and handling several groups. Hollingsworth and others (363), in a questionnaire study of the subject difficulties of elementary teachers reported a wide disagreement as to the subjects found most difficult; a greater agreement among intermediate teachers than primary teachers; a greater agreement among all teachers as to the subjects that are easiest to teach than there is in the most difficult; and variation among teachers as to the causes for the difficulty of a subject. Johnson and Umstattd (364), in a questionnaire study of the difficulty of beginning teachers as observed by superintendents, reported the following items in order of decreasing difficulty: remedial instruction; use of test results; diagnostic testing; provisions for individual differences; training in habits of study; supervised study; discipline; classroom management; questioning; motivation; assignment; and stimulating and utilizing student participation. Betts (354) submitted a checklist of eleven types of difficulties to elementary and to high-school teachers and reported the three most difficult types of problems as follows: problems growing out of school attitude and conduct; difficulties connected with pupils' study and lesson getting; and the teacher's presentation of the lesson. Paulu (370) submitted a checklist of difficulties in teaching reading to rural school teachers and administered a reading test to the pupils to determine the specific reading disabilities.

### **Evaluation of a Supervisory Program**

*Opinions of teachers*—Reppen (372), in a questionnaire study based upon returns from seventy cities, reported the following supervisory assistances as the most helpful as judged by the teachers: methods and technic; general helps and criticisms; curriculum problems; provision for individual differences; and disciplinary problems. The following supervisory activities are reported as most helpful: classroom visitation and conferences; demonstration; visiting other teachers; teachers' meetings; professional reading and discussion; experimental study of teaching problems; participation in curriculum construction; and supervisory bulletins. The strong teachers reported classroom visitation and conferences as the most helpful. All teachers agreed that supervisory bulletins were of least value. More strong teachers than weak teachers sought aid from supervisors. Many teachers felt that their effectiveness would be increased if supervisory activities were abolished. Reppen concluded that supervisory activities were largely a matter of routine and were not based upon individual teaching problems. Frederick and Halter (360), in a questionnaire



study of the attitudes of teachers and supervisors concerning supervisory principles and technics, reported that teachers and supervisors differed markedly as to their attitude toward the extent and character of supervisory practices.

*Other technics of measurement*—Balliette (351) and Lange (366) reported on gain in pupil achievement and the use of teachers' ratings as evidence of teaching growth. Cocking (356) reported on gain in pupil achievement as a criterion in evaluating the effectiveness of the stenographic report as a method of improving teachers. The Fourth Yearbook of the Department of Supervisors and Directors of Instruction of the National Education Association (367), in evaluating seventy-seven individual projects for the improvement of teachers in service, reported that the most widely used technics in evaluating the improvement of the teachers were: objective tests; opinion of supervisor or principal; improved pupil attitude; and improved teacher attitude. The most frequently reported evidences of teacher growth were: increased pupil activity and interest; increased teacher interest; and test results.

### Summary

An increased interest is shown by teacher-training institutions in a follow-up program for their graduates. A considerable number of these institutions are extending supervisory services to their teachers during their beginning years of teaching. Continued interest is apparent in the problem of why teachers fail and the several studies related to this problem are in substantial agreement as to the most difficult teaching problems. The results of studies related to the improvement of teachers in service are for the most part based upon highly subjective criteria. A few attempts have been made to measure the results objectively in terms of gain in pupil achievement as measured by standardized tests. The investigators have, however, made little or no attempt to control or hold constant the many variables which influence the results. The studies seem to indicate that supervisors very frequently fail to base their programs upon felt needs as reflected by individual teaching difficulties. It is quite apparent that supervisors very largely assume that their activities result in improved teaching and do not consciously seek to evaluate the effectiveness of their work. Successful evaluation of a program for the improvement of teachers in service must of necessity be based upon a reliable and valid criterion of teaching success.



## CHAPTER VIII

### The Teaching Load

#### Actual Teaching Load

*Pupil-clock hours*—Baer (375) reported that the median pupil-clock hour load for men in senior high schools in Ohio was 544, for women, 506; for men in junior high schools, 562, for women, 622. The average loads for particular subjects for men varied from 450 for French and Latin to over 1200 for physical education, and for women from 325 for commercial subjects to 838 for physical education. The U. S. Office of Education (403) reported a study of loads in high schools in representative cities in eight sections of the United States. In general, the lightest loads were found in mechanical drawing, shop and domestic art; the heaviest in music and physical training. The highest and lowest sectional averages for certain subjects were: English, 555 and 702; language, 429 and 685; history, 453 and 668; mathematics, 506 and 748; science, 475 and 711. Crofoot (381), reporting a study of 79 teachers in one city system, found that the pupil loads in high school varied from 522 in home economics to 1175 in music. Other subjects in order from lowest to highest were: commercial, foreign language, English, history, mathematics, science, and manual arts. Hutson (389), studying the pupil-recitation hours of 145 junior high-school teachers reported the range to be from 137 to 1215. The median for commercial, home economics, and shop teachers was 445.8; for teachers of penmanship, fine arts, physical training, and dramatics, 775; and for regular academic teachers, 831.3.

*Pupil-teacher ratio*—Herlihy (384) reported the following pupil-teacher ratios for cities in the United States for 1930 and 1932, respectively: all cities over 10,000, 34.0 and 33.4; cities from 5000 to 10,000, 33.2 and 32.4; cities from 2500 to 5000, 33.8 and 33.1. A circular of the Educational Research Service of the Department of Superintendence and Research Division of the National Education Association (393) reported the average daily attendance per teaching position in the schools of the United States for certain years as follows: 1925-26, 25.0; 1927-28, 25.1; 1929-30, 25.2; 1930-31, 25.5. Data were also furnished on the same measure by states for the year 1930-31. The six states having the lowest pupil-teacher ratios were: Wyoming, 15.7; South Dakota, 16.0; Montana, 17.6; North Dakota, 17.8; Nevada, 18.4; and Kansas, 18.7. The six with the highest ratios were: Rhode Island, 30.0; Louisiana, 29.5; North Carolina, 29.2; Pennsylvania, 29.1; Mississippi, 28.8; and Indiana, 28.8.

A study of Minnesota teachers by the State Department of Education (392) indicated that the average number of pupils per teacher in all graded elementary schools, exclusive of cities of the first class, was: 1916, 40.6; 1918, 37.3; 1920, 33.8; 1922, 34.8; 1924, 33.0; 1926, 32.0; 1928, 32.0; and 1930, 30.6. In the three cities of the first class for the same

years the averages were: 1916, 33.0; 1918, 34.5; 1920, 42.2; 1922, 43.0; 1924, 43.6; 1926, 44.2; 1928, 45.4; and 1930, 42.7. In rural ungraded schools the average number had decreased from 25.1 to 23.1; for all schools in the state the decrease was from 26.5 to 25.3 over the same period.

Hotz (386: 182-83), reporting on the secondary schools approved by the North Central Association, found that the percentage of schools having a pupil-teacher ratio of over 25 had increased from 11 in 1929-30 to 31.9 in 1932-33. The number of schools having a pupil-teacher ratio of over 30 had increased from 13 in 1930-31 to 164 in 1932-33. The percentage of schools having such ratios from 26-30 in 1932-33 varied regularly according to the size of school, from 7.1 percent for schools under 200 to 55.8 percent for schools of 1000 or over. The same was true of schools having a pupil-teacher ratio of over 30, the variation being from 0.7 percent in the smallest schools to 26.7 percent in the largest.

Butsch (380) found that the average pupil-teacher ratio in the Catholic elementary parochial schools of a particular archdiocese, outside of the metropolis, varied from 15 to nearly 60, and in the metropolis from 20 to nearly 65. In each case the distribution approached the normal curve. The pupil-teacher ratios of most of the public elementary schools in the same city were between thirty and forty. The mean for parochial schools outside the metropolis was 38.07, in the metropolis 44.4, and for the public schools of the same city 35.29. For Catholic secondary schools in the same archdiocese, the range in pupil-teacher ratio was from 14.4 to 31.2. The ratio in all except one of the public senior high schools in the city was between 27 and 28.

*Median class size*—The most comprehensive studies of class size are those of the Educational Research Service (394, 396) and the Research Division of the National Education Association (395). Table 10 gives the data for the various city size groups.

*Other factors in the load*—Crofoot (381) reported the total number of hours of work per week of high-school teachers, who kept a record for three weeks at different times in the year. The average of all was 48 hours, 30 minutes per week; the lowest subject average was 40 hours, 23 minutes for home economics, and the highest 56 hours, 53 minutes for English. Other subjects in order from lowest to highest were: science, foreign language, manual arts, commercial studies, music, mathematics, and history.

Among elementary teachers the average was 43 hours, 47 minutes per week. The percentage of the total time devoted to particular items is given in Table 11.

Powdermaker (397) studied the teaching loads of women physical education instructors in universities, colleges, and high schools. She found the average hours per week, including teaching, clerical work, and conferences to be 24.8 for university, 26.2 for college, and 33.2 for high-school teachers. The total hours were the same for the first two groups, but amounted to 55.4 for high-school teachers.

TABLE 10.—MEDIAN SIZE OF CLASS IN CITY SCHOOL SYSTEMS, 1930-31  
(394, 395, 396)

Type of class	47 cities over 100,000	101 cities 30,000- 100,000	56 cities under 30,000
Atypical classes .....	19	17	16
Kindergarten .....	33	32	30
Elementary grades .....	39	34	32
Junior high schools .....	34	29	29
Senior high schools .....	31	27	26
Senior high-school classes in:			
Fine arts .....	21	19	15
Household arts .....	21	20	16
Manual training .....	22	20	19
Foreign language .....	26	24	22
Music .....	27	28	25
Science .....	28	28	25
Mathematics .....	29	27	27
English .....	30	28	28
Commercial studies .....	30	28	27
Social studies .....	31	29	30
Physical training .....	41	42	35

Hutson (389) in a study of 145 junior high-school teachers found that the median number of different pupils met each week by academic teachers was 171.3, by vocational teachers, 167.5, and by special teachers, 445. The minimum for any teacher was 46 and the maximum 895. The median number of times per week they met pupils was 5.03 for academic teachers, 2.58 for vocational teachers, and 1.68 for special teachers. The lowest average was 1.00 and the highest 10.00. He suggested that a "teacher-pupil contact quotient" found by dividing the number of pupils met a week by the average number of times each pupil was met per week should be included in obtaining the total load.

Brown and Fritzemeier (379) asked a group of high-school teachers to estimate the weight which should be given to various high-school subjects in determining the load, considering English I as 1.00. Among those subjects rated below 1.00 were: spelling, .73; penmanship, .81; agriculture,

TABLE 11.—PERCENT OF TOTAL TIME DEVOTED TO CERTAIN WORK, AFTER  
CROFOOT (381)

Type of work	High-school teachers	Elementary teachers
Preparation of assignments .....	10	16
Recitation and assignment .....	33	50
Correction of papers .....	15	7
Make-up work for students .....	4	2
Discipline problems .....	1	1
Supervised study .....	19	9
Extra-curriculum activity .....	8	5
Miscellaneous .....	7	8

.84; physiology, .85; typewriting, .89. Among those rated close to 1.00 were: English II, 1.03; American history, 1.02. Among those rated above 1.00 were: Latin, 1.27; physics, 1.28; French, 1.26; chemistry, 1.23. Woody and Bergman (405) obtained records of the actual time spent per week by various teachers, and found that counting 200 minutes per week for recitation, the actual time spent was, for certain subjects: English, 400; science, 410; biology, 470; social science, 385; mechanical drawing, 297; music, 283, and physical education, 260. Other subjects were found not to differ significantly from the median for all subjects.

Brown and Fritzemeier (379) also obtained from twenty state teachers colleges teachers' estimates of the increased difficulty due to added number of daily preparations and to added number of separate teaching fields. The average of these estimates gave the following results: two daily preparations, 12 percent increase; three, 22 percent; four, 36 percent; five, 56 percent. Two separate teaching fields, 12 percent increase; three, 34 percent; four, 75 percent; five, 155 percent. They suggested that these weights should be used in determining the total teaching load. Woody and Bergman (405) determined the amount of time spent in connection with the same subject for different degrees of heterogeneity of teaching schedule. The medians were found to be as follows: subject alone, 30.9 minutes; subject and study hall, 31.4 minutes; subject and one other, 31.3 minutes, and subject and two others, 38.9 minutes.

Puckett (398) received answers to a questionnaire on the length of the school day from 104 heads of science departments in high schools. He found that the hour at which teachers were required to report in the morning varied from 7:15 to 8:40, with the median at 8:10. The time at which they were permitted to leave varied from 2:00 to 4:00 with the median at 3:30. The total number of clock hours in the building varied from 5 hours to 7 hours, 35 minutes, with the median at 6 hours, 57 minutes. The average number of academic class periods per teacher varied from four to seven, with the median at five. Free periods per teacher varied from none to four, with the median at one.

### Studies of Class Size

Irwin (390) summarized all studies of class size available in 1932. From 1900 to 1932 he found 205 references in the literature to 108 different investigations of class size. Of the 54 which took into account the element of brightness of the pupils, in 29 cases the largest classes excelled, in 22 cases the small classes, and in 3 cases neither. Fifty-seven studies are reported for the college division, in 44 of which large classes excelled, and in 13 the small classes.

*Elementary schools*—Whitney and Willey (404) reported a study of 22 experimental classes in Trinidad and 2 in Pueblo, Colorado, in grades one to four. The smaller classes included 20 pupils and the larger 40. Matched groups were used, each pupil remaining half the time in a

small section and the other half in a large section. The results show a difference in percent of gain of about 6 percent in favor of the small classes. Differences in gains of individual pupils were also in favor of small classes.

*Secondary schools*—Davis and Goldizen (382) reported a study in junior high-school history taught according to the Morrison unit technic. Control groups of 35 showed a small advantage on the first unit; an experimental section of 70 showed a small advantage on the second and third units. Smith (401) reported a two-year study of a class of 51 contrasted with classes of 20 and 21 in high-school English, with members matched on the basis of intelligence, age, and reading ability. No difference was found in grammar, punctuation, capitalization, mechanics of reading, and composition. Small classes were superior in letter writing and library methods, and large classes in spelling, increase of vocabulary, knowledge of literature and extent and variety of reading activities. No significant differences were found between large and small classes by the following: Ewan (383) with groups paired by a standardized test after a definite period of instruction; Holy (385) with classes of 38 and 42 compared with classes of 20 and 27 in high-school English; Brooks (378) with classes of 20 and 80 in English composition by the laboratory method; Bloomfield (377) paired groups of 30 and 55 in American history tested at intervals of two weeks.

*Higher education*—Hudelson (387, 388) reported respectively on 73 and 67 separate experiments at the University of Minnesota in which students were carefully matched in classes ranging from 8 to 336 members, with the larger groups from twice to twelve times the size of the smaller. In four out of every five experimental units students in the large classes excelled those in the smaller. In 50 percent of the units the superiority of the large class was statistically significant, while the advantage of the small classes was statistically significant in only 5 percent of the units. At every intelligence level and at every scholastic level the paired students in the large classes have tended to outstrip their equals in the small sections. Slight differences in favor of large classes were found by Kirk (391) with paired groups of 36 and 70; Remmers (400) with a large group of 150 in elementary psychology matched with students in small groups of 36 and 40. No differences were found by Rath (399) with a large section of 100 and two small sections of 35 in zoology tested on acquisition of biological knowledge and ability to use scientific methods; Beauchamp (376) with matched sections of 27, 45, and 105 in a course in education; and Taylor (402) in sections of 36 and 104 in introductory psychology.

Among the studies listed the following used different technics of instruction in the sections of different size, attempting to fit the method to the size of the group: Whitney and Willey (404), Taylor (402), Beauchamp (376), Rath (399), and Remmers (400).



## CHAPTER IX

### Teaching Combinations in High Schools

**T**HERE were available for this review one nationwide investigation which included teaching combinations and one or more studies for each of seventeen different states which were limited to the teaching combinations within their respective states. Studies for two other states are listed in the bibliography but were not available for review.

#### General Findings

More than 1000 different subject combinations were found in Ohio by Anderson (407) and 552 were reported for Minnesota by Overn (438). The percentages of teachers who were teaching one field only were 23 for Kansas (414); 29.9 for Iowa (412); 47.5 for Illinois (411); 50 for new positions in Wisconsin (442); 75 for the north central high schools of Michigan (451); 62 for Minnesota (438); and 86 for New Jersey (425). In Kansas 50 percent of the teachers had combinations which included three or more fields; in Iowa 32.7 percent; in Minnesota 12 percent; and in Illinois 7.5 percent. Teachers of English, mathematics, industrial arts, and home economics constituted one-half the teachers in Woody's study (451) who were teaching in one field only. An inspection of the accompanying tabulation will reveal that the special fields were more often taught alone than were the academic fields.

Twenty-five percent of the group studied by Anderson (407) were teaching nothing in their major or minor fields of preparation, while Umstattd (448) found 16 percent with no classes in their major fields. In the latter study, 43 percent of the academic majors and 25 percent of those who had majored in the special fields were teaching at least one subject outside their fields of concentration, and in Kemp's California investigation (426) 33 percent were found to be untrained for a portion of their work. On the same point Stum (447) found a percentage of 35. Luker (432) reported that 14.2 percent of the South Dakota systems had no teacher teaching in his major field only, that 18 percent had one teacher teaching some subjects outside his major and minor fields, 41 percent had two such teachers, and 33 percent had three. Ogden (437) stated that 85 percent of Stanford graduates during their first year of teaching taught in the fields of their major and minor preparation, while Anderson (407) showed that the percentage teaching in fields of major preparation *decreased* with experience.

Hostettler (421) reported only a slight reduction since 1920 in the average number of subjects in teaching combinations. As a remedy for this condition several investigators (407, 421, 427) recommended certification by subject, yet Hagood (417) discovered that the Nebraska standard requiring inexperienced teachers to teach only those subjects in



which they had had preparation had resulted only in a slight reduction in average number of fields taught by them, from 2.29 to 2.11, between 1927-28 and 1931-32. Luker (432) tabulated causes reported by South Dakota school officials for deviation from major and minor fields.

### Teaching Combinations

The major findings of the investigations on teaching combinations are shown in Table 12. For example, it is there revealed that teachers of agriculture taught nothing outside their field in 33 percent of the cases included in Plenzke and Doudna's study (442); in 42 percent in Anderson's study (406); in 60 percent in Doughman's study (414); and in 79 percent in Overn's study (438). (Since each study except Peik's (440) was limited to one state, reference to the bibliography will indicate the state to which the percentage applied. Throughout the tabulation the numbers in parentheses refer to the bibliography.) It is further revealed that Heiges (419), Peik (440), and Plenzke and Doudna (442) found science to be the subject of second dominance in the combinations of agriculture teachers who taught other subjects in addition to agriculture, while Doughman (414) found industrial arts to be their subject of second dominance, and that various investigators found industrial arts (419, 440), and science (414), to be subjects of third dominance for agriculture teachers.

Subjects of second dominance found by three or more investigators were science for teachers of agriculture, for teachers of home economics, for teachers of industrial arts, for teachers of mathematics, and for teachers of social studies; social studies for teachers of commercial education, for teachers of education, for teachers of English, and for teachers of physical education; history for teachers of English; study hall for teachers of English; English for teachers of Latin, for teachers of "modern language," for teachers of music, and for teachers of social studies; and mathematics for teachers of science. Subjects of third dominance found by as many as three investigators were Latin for teachers of English and social studies for teachers of science.

Certain findings with respect to specific subjects, not revealed in the tabulation, are of some significance, although based in each case on only one study. Peik's study (440), in which 52,768 teaching programs were analyzed, showed that history, sociology, or economics occurred singly or in various permutations as subordinates in 20 percent of the combinations in which no one of the three subjects was the subject of first dominance. This percentage for English was 18; for mathematics, 11; and for physical science, 10. Commercial arithmetic, commercial law, and commercial geography, in Beaver's study (409) were more often linked with subjects outside commercial education than with other commercial education subjects, whereas, in the social studies, economics, sociology, and civics were more often combined with each other than with any other subject. Plenzke and Doudna (442) reported that social studies were assigned

TABLE 12.—PERCENTAGE OF TEACHERS WHOSE COMBINATIONS WERE LIMITED TO ONE FIELD, AND SUBJECTS OF SECOND AND THIRD DOMINANCE IN COMBINATIONS NOT LIMITED TO ONE FIELD

Dominant activity	Percent with the one activity only	Activity of second dominance	Activity of third dominance
Administration			
Superintendency . . . . .	38 (411) <sup>1</sup>	Mathematics (414) Science (Physics) (411)	Social Studies (414)
Principalship . . . . .		Mathematics (411, 435) Social Studies (414)	Physics (435) Science (414)
Both Superintendency and Principalship ..		Mathematics (429) Science (412)  No definite combination (409, 421)	Science (429) Mathematics or Social Studies (412)
Agriculture . . . . .	33 (442)	Science (419, 440, 442)	Industrial arts (419, 440)
	42 (406)	Industrial arts (414)	Science (414)
	60 (414)		
	79 (438)		
	77 (439)		
Art . . . . .	43 (414)	Music (419)	English (440)
	56 (438)	Industrial arts (440)	
	80 (439)		
Commercial Education . . .	37 (414)	Social Studies (412, 414, 440)	English (412, 440)
	72 (438)		Mathematics (414, 432)
	78 (411)	Science (432)	History (419)
	86 (442)	Mathematics (419)	
	81 (429)	Scattered (429)	
	87 (439)		
Education . . . . .	7 (414)	Social Studies (409, 414, 424, 440)	English (440)
	100 (438)	English (417)	Mathematics (424) English or Mathematics (412) Social Studies (417) Science (414)
English . . . . .	16.7 (412)	History (419, 424, 435, 442, 451)	Latin (409, 419, 424, 429, 438)
	26 (414)	Social Studies (409, 429, 440)	Social Studies (414, 417)
	30 (408)	Study hall (409, 412, 438)	Modern language (412, 440)
	31 (438)	Latin (417, 434)	Music (434)
	52 (429)	Foreign languages (414)	Library (435)
	44 (439)		Latin or Library (442)
	After nine years of experience, 44 (438)		

<sup>1</sup> The first number refers to the percentage; all numbers in parentheses refer to studies listed in the accompanying bibliography.

TABLE 12.—PERCENTAGE OF TEACHERS WHOSE COMBINATIONS WERE LIMITED TO ONE FIELD, AND SUBJECTS OF SECOND AND THIRD DOMINANCE IN COMBINATIONS NOT LIMITED TO ONE FIELD—(Continued)

Dominant activity	Percent with the one activity only	Activity of second dominance	Activity of third dominance
Home Economics .....	41 (429) 45 (414) 86 (438) 54 (439)	Science (409, 412, 414, 417, 429, 440, 442) General Science (411)	English (414, 440) History or English (424) Social Studies (429) Biology (411)
Industrial Arts .....	32 (429) 33 (414) 55 (406) 59 (411) 71 (438) 80 (442) 67 (439)	Science (411, 412, 414) Mathematics (409, 440) Agriculture and Mathematics (419) Physical education (417, 431)	Science (417, 431) Art (440) Social Studies (412) Physical education (411)
Languages			
French .....	33 (439)	English (406, 409) Latin, English, or History (419) Latin (419)	History (419) English (424) Modern language (440) Mathematics (429)
German .....			
Latin .....	34 (429) "Seldom full time" (442) 45 (439)	English (406, 417, 429, 440) English, French, or History (419) English, Social Studies or Mathematics (409) History (424)	
Spanish .....	78 (439)	French, Latin, or English (419) "Another foreign language, or English" (442) English (412, 424, 440)	Latin (440) History (424) Social Studies or Administration (412)
"French, German or Latin" .....			
"Modern Language" ..			
Mathematics .....	15 (406) 17 (438) 41 (439)	Science (406, 414, 417, 419, 424, 429, 434, 435, 440, 442) Social Studies (409)	Science (409) General science (424) Commercial education (414) Social Studies (440) History (419)
Music .....	57 (414) 58 (406) 62 (438) 77 (429) 62 (439)	English (412, 414, 417, 424, 440) English and Art (419)	Social Studies (412, 440) History (424)
Physical Education .....	17 (415) 31 (414) Boys, 50 and Girls, 64 (438) Health, 5 (415) 37 (439)	Social Studies (412, 414, 440) Science (417) History (419)	Mathematics (415, 419) Science (440) Science or Mathematics (412) Social Studies (417) Industrial arts (414)

TABLE 12.—PERCENTAGE OF TEACHERS WHOSE COMBINATIONS WERE LIMITED TO ONE FIELD, AND SUBJECTS OF SECOND AND THIRD DOMINANCE IN COMBINATIONS NOT LIMITED TO ONE FIELD—(Continued)

Dominant activity	Percent with the one activity only	Activity of second dominance	Activity of third dominance
Men .....		Social Studies (415) Science (411) Science, Social Studies, Mathematics or Industrial Arts (445)	
Women .....		English (415) Science, Social Studies, Music, English, or Home Economics (445) Less often combined with any one subject than are men (411)	Home Economics (415)
Science .....	15 (412, 414) 43 (411) 57 (429) 66 (443) 54 (439)	Mathematics (409, 411, 414, 424, 429, 435, 443) English (417) Administration (412) Mathematics, History, or English (419) Athletics (434) Widespread (442) Physical (440) Mathematics (440)	Social Studies (409, 417, 443) Mathematics (412, 434) Physical Education (411)
Biological .....			
Physical .....			History (440) Biological (440)
Social Studies			
History alone .....	13 (406)	English (424, 451) English or Mathematics (419) Social Studies (442) English (409, 411, 440) Science (414, 417, 429) History (442) Study hall (412) No standardization (423)	Civics and Economics (424) Science (409) Latin or Science (411) English (417) Mathematics (440) Physical education or English (412)
Others .....	11.6 (412) 17 (414) 64 (429) 42 (439)		
(Some studies here did not differentiate history from the other social studies)			

to various teachers regardless of their preparation. Overn (438) found a distinct tendency for science teachers and for English teachers to combine with three or more activities. Beaver (409) reported that teachers of English and teachers of social studies in South Dakota carried study hall duties more often than did other teachers. According to Plenzke and Doudna (442) English was more often taught by beginning teachers than was any other subject while Latin was included in more beginners' loads than were all other foreign languages combined. Umstattd (448, 449) found that beginning teachers of special subjects more often than beginning teachers of academic branches conducted extra-curriculum activities related to their respective fields of major preparation. Practically all be-

ginning teachers reported at least one extra-curriculum activity, one-third reported two, and one-fifth reported three.

### **Comparison of Combinations in Large and Small Schools**

Several investigators (409, 425, 426, 435, 438, 447, 451) found that in general the smaller the school, the wider the teaching combination. Briggs (412) reported that definite combinations were more often found in large than in small schools. Beaver (409) found small schools in which some teachers were teaching in as many as six departments. Koos and Woody (430) reported that one-fourth of the teachers in Washington schools with ten or less teachers taught three subjects and one-seventh taught four, whereas only one-eighth of the teachers in schools with more than ten teachers taught as many as three subjects. For the three-year high schools of Pennsylvania (grades nine, ten, and eleven), Heiges (419) found 9.1 percent teaching within one field only while 44.1 percent taught in three fields, and 6.1 percent taught in four; whereas in the four-year, six-year, and senior high schools 71.1 percent taught within one field, 3.3 percent in three fields, and none in four.

### **Statistical Comparisons Made in Studies of Teaching Combinations**

In addition to calculating for each field the percentage of teachers with combinations limited to that field and to determining for each field the fields of second and third dominance, various investigators employed other comparisons, some of which were unique. The additional comparisons are listed below with a reference to at least one investigation in which each may be found:

Percentage of teachers with various numbers of subjects for which they are not prepared (406, 432)

Percentage of schools with various numbers of such teachers (432)

Percentage of teachers teaching various numbers of fields (408)

Average number of fields in combinations (415)

Effect of experience upon width of combination (407)

Reasons why combinations extend beyond fields of major or minor preparation (407, 432)

Percentage of occurrence of each subject in combinations in which the given subject is not of first dominance (440)

Inclusion of extra-instructional duties in combinations (409, 414, 448)

Inclusion of each teacher's combination over longer period than one year (407, 417, 437)

Differentiation of data for sex (415, 420); amount of experience (407, 448); size of school as determined by enrolment (411) or number of teachers (422, 430); type of school (419, 451); and new positions (442)

Degree to which arbitrarily designated groups of "teacher-positions" are mutually exclusive (438)

Use of state department records as basis of study or as supplementary data (411, 432, 438)

Use of reported vacancies as source of combinations desired (434)

Comparisons with other states (421, 427) and with studies conducted during an earlier period (433).



## CHAPTER X

### The Health of the Teacher

**D**URING the last three years, emphasis has been given to the mental health of the teacher. Patry (467, 468) discussed both the positive and negative aspects of personal growth. Mason (462) presented seven hundred case studies of maladjusted teachers. Bassett (453) and Burnham (454) confined their consideration to the effect of the ill-adjusted teacher on the pupils. Other sources dealing adequately with some phase of mental health included the writings of Plant (470), Zachry (484), Thom (477), Andress (452), and Rawson (471).

Trusler and Brown (479) presented an excellent paper on the responsibility of teacher-training institutions for the health of the teacher. Townsend (478), Kahrs (458), and Zachry (485) offered additional information on the same topic.

The few reports on the teacher's physical health during the last three years were exceedingly valuable. An issue of *Child Welfare* (475) presented a concise and workable set of rules for healthful living. Wilkes (482) and Whitcomb (481) also suggested positive means of improving the health of the teacher. Mealey (463) reviewed problems in health that had been referred by persons identified with teacher-training institutions to the American Child Health Association. Ten thousand queries were tabulated to determine the nature of the problems. The annual report of the Teachers' Health Service of the Board of Education, Los Angeles, California (460) listed definite measures which have been taken within the last year to improve the health of the teacher. Rex (472) outlined a successful teacher recreation program that had been carried out in Toledo, Ohio. Onstead (466), Connor (455), and Hicks (456) presented statistics of the causes of teacher illness. Staffelbach and McDonald (473) collected data on activities which were participated in by teachers during college and after graduation, and correlated the results with types and prevalence of disease. The problem of the absent teacher was studied by Van Eman (480) and Kuhlmann (459). The Research Division of the National Education Association (465) reviewed the situation regarding leaves of absence and salary adjustments.

#### Responsibility of Teacher-Training Institutions

Although it is recognized that the health of the teacher is of first importance, little is known about it. "The foundation of good health in the teacher must be laid in her own school days" (458). All agree that the solution to the problem of the health of the teacher rests with the training school. "Training institutions must accept the task of inducing health into future teachers. The teacher is not just an instructor in subjects but an

influence in the lives of the children" (458). Townsend (478) suggested a selected personnel of prospective teachers and a sound school environment and proposed that a new profession of teaching be encouraged, which would recognize the importance of a well-integrated personality, and of the business of living. Only 63 percent of the teachers colleges studied by Trusler and Brown (479) mentioned the physical condition of their prospective candidates, showing that the emphasis is insufficient.

### **Health Ratings**

Connor's study (455) of the deaths of 1735 teachers in Ohio in the last decade found that the death rate was considerably lower than for the general population, 3.4 per 1000 in contrast to 11.8 per 1000. Pulmonary tuberculosis caused over 9 percent of the total deaths. Cancer caused twice as many deaths as in the general population. Onstead (466) found that of 225 teachers of Defiance, Henry, and Williams Counties, Ohio, 68 percent of all illness was of a pulmonary nature. With the exception of smallpox vaccinations few health protective measures were taken. Only 28 percent of the total number had yearly dental examinations. An indeterminate amount of sickness was caused by worries, which according to questionnaires were listed in order of their importance as financial, pupils, and tenure of office. A study by Hicks (456) of 602 cases of absence of teachers revealed that respiratory troubles caused the majority of illnesses with indigestion and nervous disorders ranking next. "The economic depression has caused increased illness among teachers" because of "jeopardized positions . . . increased teaching loads . . . increased financial strain . . . and the removal of the sick leave" (461). The causes of the most prevalent types of disorders among teachers were traced by Staffebach and McDonald (473) largely to the necessarily sedentary nature of the occupation. Among the teachers studied by Onstead (466) only 37 percent engaged in recreational outdoor activities, 55 percent spent the hours from four to six in the afternoon in the schoolroom, and most of them spent their vacations in summer school.

### **Mental Health**

That the mental health of the teacher is a real problem is shown by Hicks's report (456) on 602 teachers in which only 339 were listed as normal, 132 were definitely psychopathic, and 131 showed psychopathic tendencies. More than 11 percent of the number had had nervous breakdowns. Mason (462) studied 700 teachers so maladjusted to social life that they were admitted to hospitals as mental patients. The teachers had been committed to hospitals at an earlier age than the general population, and the single teachers were more subject to mental ills than those who were married. Many articles have been written on both the positive and negative aspects of mental health. Patry (467, 468) lists some of the shortcomings in respect to mental health, as "self-centeredness, self-satisfaction, mental

dishonesty, lack of a sympathetic and friendly attitude, moodiness, sarcasm." He defined mental health as an individual's ability to adjust to life with satisfaction, success, and happiness. He listed the guideposts for achieving this step as "healthy bodies, ability to face facts, a well-balanced program of sleep, work, and play, a sense of humor, capability of keeping ambition and imagination within realms of reality." A slightly different attitude was taken by Burnham (454), who stated that the teacher may improve mental health by realizing the social value of the work, developing wholesome interests, and studying mental hygiene through the classroom pupils. Not only is mental health desirable for the teacher as an individual but it is indispensable for the teacher as a member of the profession. Thom (477) stated: "The teacher of the young child is in a strategic position, behavior patterns are still in formation and the mind is plastic. . . . Teacher knowledge means understanding and meeting the children's problems."

### **Improvement of Health Standards**

The American Child Health Association (463) studied 10,000 requests for health information filed during the last four years. The results showed an intensive and extensive interest in health education. A diminishing demand for information about height-weight standards was noted with an increasing interest in individual growth. The majority of the requests concerned municipal problems relating to health, the correlation of health with academic subjects, child care, nutrition, adult activities, and specific units of health work. Many articles suggest habits and rules of living which would improve the teacher's health. Diet, sleep, exercise, and mental health suggestions are included. The teachers in the Los Angeles public schools are given the benefit of a Teachers' Health Service and cooperating clinics, in which they are checked throughout their service and given the opportunity to correct all remedial defects (460). Recreation classes were organized for the teachers of Toledo, Ohio, by the Department of Physical Education. Concerning this program, Rex (472) reported, "In a two-year period 500 out of the total number of teachers, which is approximately 1500, participated in the program."

### **The Absent Teacher**

Kuhlmann (459) studied the attitudes of government, business, industry, and school systems toward the absent employee. The results showed that teachers had less liberal absentee allowances than did other workers. The general tendency seemed to be that the more liberal the time allowances, the greater number of absences. Van Eman (480) found that in the public schools of Columbus, Ohio, 38 percent of the teachers' absences is due to sickness. The number increases from September until February, when it declines rapidly, only to rise again in May and decrease in June. Pence

(469) reported that personal illness causes the greater percentage of absence. The Research Division of the National Education Association (465) summarized certain data on the provision for the classes of the absent teacher, salary adjustments, leaves of absence, and related matters. The report recommended that the teacher's ill health be reduced to a minimum through physical examinations and adjusted environmental factors.

## CHAPTER XI

### Teachers' Salaries

**T**EACHERS' salaries and salary scheduling have received much attention from students of education during the past three or four years. Numerous articles have been written in this field and several research studies completed. No significant discoveries have been made, however. The chief contribution of research has been the clarification of the issues involved in the determination of salaries and the formulation of salary schedules, together with the improvement of old technics.

#### Theories of Salary Determination

Dix (503) questioned the whole current theory of salary determination and attempted to apply Pigou's criteria of a fair wage to the salaries of teachers. He made an exhaustive study of the intelligence of teachers and then made comparisons with other groups of workers. He showed that teachers in service are found almost altogether in the upper half of the range of intelligence of the population as a whole. He found also that the mean intelligence of teachers with two years or more of training beyond high school was 1.38 standard deviations above the mean of the general population. Dix then proceeded on the assumption that income should be distributed among individuals in accordance with their natural ability and arrived at a basic salary for teachers which was markedly above the present average. The author points out the futility of properly adjusting the teacher to the economic situation without taking into account all other occupations. His contribution lies chiefly in the method which he proposes for attacking the problem of wages.

Ells (507), in a comprehensive study of salaries and cost of living, demonstrated the fallacy of using the cost of living index of the U. S. Bureau of Labor Statistics in determining the adequacy of teachers' salaries. He examined the weights allotted to the various items in this index and concluded that working men and teachers differ radically in the composition of their budgets. He emphasized the fact that the item "miscellaneous" was much more significant in the case of teachers than of laborers. Ells also concluded that teachers' salaries in 1913 were inadequate and therefore the indiscriminate use of this date as a basic year for comparative purposes was indefensible.

Elsbree (509) made studies of teachers' salaries.

Morrison's discussion (532) of the compensation of school employees is probably the most profound treatment of this subject to date. He dealt chiefly with the economics of wages and salaries and only touched upon the local problems involved in formulating a salary schedule. One of his most challenging recommendations is the payment of teachers by the



state. He argued that teachers should be classed as civil servants and should be treated as such.

Bartlett and Neel (488) studied compensation in the professions and developed some interesting criteria for wage payment. This study contains one of the best discussions of the advantages and disadvantages of salary schedules that is to be found anywhere.

Butsch (492) analyzed the trends in the purchasing power of teachers' salaries from 1841-1930. The chief contribution of this study is that it brings the work of Burgess and Douglas up to date. Butsch also questioned some of the conclusions reached by Eells (507) in his study of teachers' salaries and the cost of living. He pointed out what he deemed to be some of the weaknesses in the Teacher's Index which Eells had developed and suggested certain modifications. Butsch also maintained that a 20 percent reduction in salary in 1932 would still result in purchasing power as high as in 1927.

### **Relations between Salaries and Other Factors**

Hinson (518) made a statistical study of the relationship between such factors as age, training, experience, and tenure of teachers and the salaries of high-school teachers in Florida. The conclusions were based upon facts analyzed for two separate years, 1923-24 and 1930-31. The findings indicated that training was the most important factor in producing high salaries; that age was relatively unimportant; that experience was insignificant in one set of data and important in the other; and that tenure was of some significance.

Shaw's findings (551) in Oklahoma differed in some respects from those reported by Hinson. Whereas amount of training was an important factor in determining salary in Florida, Shaw concluded that it was relatively insignificant in Oklahoma. In the matter of experience and tenure of position the conclusions reached by Shaw and Hinson are in fairly close agreement.

### **Analyses of Teachers' Salaries and Salary Schedules**

Young (562) studied the administration of merit-type salary schedules in fifty-nine cities. He listed twelve "justifiable" practices and sixteen "unjustifiable" ones which he found in his study. He concluded that current methods of measuring teaching efficiency are largely subjective, with a low degree of reliability. In 68 percent of the cities two officials rated each teacher. Fifty-three percent of the cities rated each teacher at least twice a year. The proportion of teachers rated excellent was unduly large, only 19 percent of the cities studied approaching the normal probability curve in the number of teachers rated into each merit group. The author did not attempt to answer the question of whether or not merit-rating should be employed. He assumed that since merit-rating is in operation in many communities, it is important that it be properly administered

and suggested principles to guide the superintendent who wants to use it.

Bowles (489) made an intensive case study of the operation and effects of a single salary schedule in Newport News, Virginia. He compared this city with another of approximately the same size which had the usual type of salary schedule. He concluded that the single salary schedule had a favorable influence on the composition and qualifications of the teaching corps. The amount of preparation, the additional training secured while in service, and the amount of experience of teachers in Newport News was markedly greater, on the average, than for teachers in other comparable cities having the usual type of salary schedule. Bowles also discovered that the cost of instruction in Newport News did not increase more rapidly than in comparable cities using the usual type of schedules.

Munzenmayer (533) made a detailed study of teachers' salaries in Ohio and recommended a state salary schedule based upon training and experience. Through a special correlation and regression technic he computed the relative influence of training and experience on teachers' salaries in Ohio and used these findings as a basis for a statewide schedule. He then modified his results somewhat to meet the principles underlying salary schedule construction.

Munzenmayer divided teachers into five experience groups and proposed annual increments as follows:

1. For the first 4 (1-4) years—\$36 per year
2. For the next 8 (5-12) years—\$18 per year
3. For the next 9 (13-21) years—\$12 per year
4. For the next 8 (22-29) years—\$9 per year
5. For the next 6 (30-35) years and more—\$7 per year.

In the matter of training he took into consideration the difference in the cost of undergraduate and graduate study and proposed an increase in salary of \$120 for each year of undergraduate training and \$160 for each year of graduate work up to a total of six years. These increments for experience and training were to be added to the minimum salary of \$800 implied in the present state law.

Elsbree (509) wrote a book covering the whole field of teachers' salaries. He estimated the ultimate cost of various salary schedules.

The National Education Association (534 through 544) has continued to publish biennial studies of teachers' salaries and has devoted considerable attention to salaries and salary schedules in the Research Bulletins.

Several comprehensive studies of salaries in individual school systems have been made since 1930. Among the most important of these are the studies in Fresno, California (506), Cleveland, Ohio (520), Los Angeles, California (513), Springfield, Massachusetts (550), and Oakland, California. The technics employed in these studies are for the most part similar in character to those commonly used in recent salary studies.

## Other Studies

From the angle of state salary legislation Spencer's study (554) is significant. He analyzed the state laws from 1903 to 1929. He found that twenty-eight states have laws affecting teachers' salaries, eight of which have established minimum salaries for teachers while five have laws regulating the maximum salary. Spencer also provided a technic by which a state salary schedule based upon the "definition" of the state minimum program for teacher experience and preparation might be applied in Florida. He demonstrated also the application of Harry's cost of living technic for making corrections to the minimum salary schedules.

Numerous other studies have been made during the period covered by this volume. Most of them, however, can scarcely be classified as research studies and were not deemed of sufficient importance to be included in this discussion. Many of those omitted above will be found in the bibliography included for this chapter.

## CHAPTER XII

### Tenure of Teachers

**T**ENURE is a subject which many educators have discussed, but few have studied. During the two decades which followed the passage of the first state tenure law in 1910 the principles underlying tenure legislation were accepted or rejected largely on the basis of subjective opinion. Although the National Education Association's Committee of One Hundred on Teacher Tenure assembled considerable data on tenure legislation between 1920 and 1930, the conclusions drawn from its earlier studies were too frequently based upon insufficient data or were so obviously biased as to arouse the suspicions of the careful student of education. A further limiting factor to scientific investigation in this field during the period mentioned was the relatively brief experience which the various states considered had had with tenure.

#### State Tenure Laws

The first significant study of the effects of a tenure law on the profession was made by Holmstedt (578) in 1930. He made certain comparisons between the teaching personnel in New Jersey, a state which had had a tenure law since 1910, and that in Connecticut, where no tenure provisions existed. Holmstedt studied the amount and rate of teacher turnover in the two states; the rate of dismissal and the time when it occurred; the interest shown by teachers in professional improvement; and the attitudes of teachers, administrators, and presidents of boards of education toward tenure.

His conclusions are interesting and in many instances are contrary to the claims advanced both by the advocates of tenure and by its opponents. He found that the New Jersey tenure law apparently did not reduce the amount of dismissal to any marked degree. However, the introduction of tenure, with its three-year probationary period seems to have changed the time when dismissals occur. In New Jersey 60 percent of the dismissals took place during the teacher's first year of service as opposed to 44 percent in Connecticut. When the dismissals for the first three years were totaled, it was found that 93 percent of all dismissals in New Jersey took place during the probationary period. The comparable percentage for Connecticut was 75.

Holmstedt also concluded that the difference in the rate of teacher turnover between Connecticut and New Jersey was not large enough to be of much practical significance in individual school systems. He did point out, however, that the New Jersey law has had some effect in stabilizing the teaching staff when the state is considered as a whole. No evidence was found to show that tenure causes decreased interest in professional im-

provement. On the contrary, when training in service, professional reading, and travel were considered, the New Jersey teachers proved to be just as alert professionally as teachers in Connecticut.

The most annoying problem confronting New Jersey schoolboards, according to Holmstedt, is the removal of unsatisfactory teachers. Both teachers and administrators in New Jersey, however, favor the tenure law, whereas schoolboard presidents rather generally oppose it.

Scott (591) made a critical study of the historical, legal, operative, and comparative aspects of indefinite teacher tenure. This study is both philosophical and analytical and its chief contribution consists of a clarification of the issues underlying indefinite tenure for teachers and suggestions for tenure and related legislation. The author pointed out the close relationship between tenure and civil service, revealed the results of an exhaustive study of appeal cases, and showed how the various tenure laws have operated. Teacher tenure in six European countries was compared with similar provisions and conditions in American states having indefinite tenure laws. This analysis showed that European practice differs considerably from practice in the United States. European nations have patently established more safeguards in the field of personnel regulations than have we in this country; furthermore, they require more training for teaching; their central authorities exercise more control in the selection and appointment of teachers, and transfers are more easily made than is the case in the United States. Scott recommended that tenure legislation be accompanied by high certification requirements, pension and retirement provisions, minimum salary laws, and a relatively large administrative unit. He emphasized also the need of a flexible probationary period and carefully conceived disciplinary regulations including a scale of penalties.

Campbell (567) found that the tenure law in Indiana had slightly increased the tenure of teachers. Hunter (579) collected the opinions of 1400 California teachers regarding the tenure law in that state. Sixty-seven percent favored some modification in the law and 66 percent favored permission to appeal to some authority other than the civil courts.

### **Turnover of Teachers**

Shambaugh (592) studied the turnover of teachers in five typical counties in California for the years 1913-14, 1919-20, 1926-27, and 1927-28. He found that whereas 15.3 percent of the total personnel left their positions in 1913-14 and 17.5 percent dropped out in 1919-20, only 12.9 percent left in 1926-27 and 12.4 percent in 1927-28. Shambaugh also reported that the rate of turnover for 1927-28 ranged from 11.4 percent in schools having twenty or more teachers to 36 percent in schools with less than four teachers.

The Tenure Committee of the California Teachers Association (566) studied the effects of the 1927 tenure law on teacher turnover in fifty-



eight counties in California. The committee was primarily concerned with conditions in the smaller schools. The study covered a six-year period, the three years just prior to the passage of the law and the three years immediately following it. From an average of 38.7 percent in schools of eight or less teachers before the tenure act the rate of turnover fell to 33.9 percent during the three years after its enactment. Whether or not this difference is statistically significant is not explained in the study.

Strang (593) investigated 546 cases of teachers and others engaged in educational work to discover whether or not it pays to change positions. Among other factors she considered age, salary last received, and number of changes made. The results are not very conclusive and throw little if any light on the question of whether or not it is financially advantageous to change positions frequently or to remain in one job for a long period of time.

Van Houten (596) studied the relationship between the length of teaching service of more than 16,000 Pennsylvania high-school teachers and such factors as sex, marital status, class of school district, type and amount of training, number of dependents, parental occupation, and residence. Some of his most important findings are that women give longer service than men; that tenure in general in Pennsylvania is increasing; that teachers remain in service longer in large centers than in the smaller areas; that the longest service is found where the salaries are greatest; that junior high-school teachers show the longest service; that non-college graduates serve longer than college graduates; and that teachers of single subjects teach longer on the average than those having subject combination. Van Houten also analyzed the causes of teacher turnover. In general his findings correspond closely with those reported by Elsbree for New York state. "Higher salary" accounted for 18.12 percent of the total withdrawals for all districts in Pennsylvania for the year 1927-28. Then follow in order "marriage" with 17.3 percent, "dismissal" with 12.85 percent, "opportunity for advancement" with 8.75 percent, and "to be near home" with 8.04 percent.

### **Length of Teaching Experience**

Overn (583) examined the professional histories of 1036 teachers in Minnesota who began their teaching in 1919-20. He traced them for a nine-year period. At the end of the first year 500 or approximately 50 percent of these teachers had left teaching. At the end of the ninth year only 45 (4 percent) of the 1036 teachers who began teaching in Minnesota in 1919-20 remained in the profession. Gaumnitz (574) studied the status of teachers and principals in the rural schools of the United States. He found that approximately one-fourth of all the white teachers in one-room schools had been in the profession one year or less and that the median experience for this group was only two years and six months. Teachers in two- and three-teacher schools were somewhat more experienced, although the turnover was still exceedingly high.

## CHAPTER XIII

### Pensions and Retirement Pay

#### Philosophy—Social and Economic

**PRITCHETT** (630) based the social philosophy of pensions for professional groups upon both economic and social considerations. He held that a pension system based on charity cannot be defended. The American Federation of Teachers (603) went on record in 1932 as believing that society is obligated to provide teachers with adequate and secure pensions.

#### Benefits and Advantages

The benefits to be derived from a retirement system for teachers were stated by **Wirsig** (640) as follows: (a) the retirement system automatically removes from the profession teachers who have become less efficient through age or disability; (b) it encourages individuals of exceptional ability to enter and remain in the profession; (c) it fosters higher teaching efficiency by eliminating teachers' worries about their economic welfare; and (d) it will aid in stabilizing the profession. **Norton** (627), in an address to a legislative committee in Texas, added that a retirement system contributed to greater school efficiency by providing a business-like plan for eliminating teachers incapacitated because of age or physical disability and by keeping open the paths of promotion.

#### Fundamental Principles

**Cooke** (610) and **Graves** (617) gave comprehensive lists of principles to be observed in setting up a teachers' retirement system. The Department of Classroom Teachers of the National Education Association (625) reported a comprehensive summary of the important principles of organizing state and local systems. The data were based upon a review of the literature on the subject and upon reports of the activities of 38 state and 343 local retirement systems. The study as reported is very similar to that found in the Research Bulletin of the National Education Association for November 1930, and in many instances is almost an exact duplicate of it. It appears from a review of the literature that these two reports have had a profound effect in establishing the correct principles for a retirement system.

A survey of the literature gives the following list of eighteen principles mentioned by one or more writers:

- (1) Membership should be optional for those teaching previous to the enactment of the retirement law, but should be compulsory for new teachers (610, 638).
- (2) Retirement rules should provide for the retention of efficient teachers and for their retirement when old age or disability makes satisfactory service no longer possible (610, 638).
- (3) The contributions of the teacher and the public should be approximately equal (610, 623, 634, 638).
- (4) The amounts to be paid by the teacher and by the

public should be stated in the organic act creating the retirement system (610). (5) The teacher's and the state's contributions should be made regularly and concurrently during the period of service (610). (6) An individual account for each teacher should be kept (610). (7) The retirement system should be on a sound reserve basis (610, 634). (8) Periodic actuarial investigation should be made of the system (610). (9) A retirement allowance should be made for disability after a reasonable period of service (610). (10) The teacher's accumulated deposits should be returnable upon withdrawal or death prior to retirement (610). (11) The teacher should be allowed to elect the manner in which he will receive the benefits (610). (12) Credit should be allowed for service prior to the enactment of retirement legislation (610). (13) The teacher's rights under previous retirement systems should be guaranteed when the system is altered (610). (14) Provision for reciprocal or co-operative relations between states should be made with reference to retirement systems for teachers (610). (15) The retirement board should be representative (610, 638). (16) A teacher should be required to fulfill certain minimum age or service conditions before he may qualify for regular retirement benefits (610). (17) An age for compulsory superannuation retirement should be set up (610). (18) The teacher's deposit to the retirement system should be expressed as a percentage of salary (610).

### State Retirement Systems

A report submitted to the Michigan Education Association (612) gave the data reported in Table 13.

TABLE 13.—DATA ON THE MICHIGAN TEACHER'S RETIREMENT SYSTEM (612)

	1917-18	1931-32
Number retired .....	48	85
Number of refunds .....	7	1433
Total annual income .....	\$56,711.70	\$439,973.21
Total annual disbursements .....	6,108.36	350,515.78
Net annual income .....	50,531.34	89,457.43
Total assets .....		451,543.14

From 1917 to 1931 the sum of \$1,058,081.93 was disbursed. However, in the light of this report, which indicated that the system had some of the features of a sound retirement system, a report of a commission appointed by the governor indicated in 1931 a deficiency of \$14,000,000 (636). The answers to many questions covering the retirement system in Michigan indicated that it was unscientific (604). Menge (624) stated that the system in Michigan was actuarially unsound and that the law did not recognize prior service liability.

Marsh (622) compared the ratio of the percentage of disbursements to receipts in the Washington statewide system with that in the local systems for the years 1930 and 1931. He found that for the state in 1930 the ratio was 75.4, while in 1931 it was 93.2, or an increase of 17.8 percent. For the local systems in 1930 it was 68.2 percent and 74.4 percent in 1931, or an increase of 6.2 percent. Cole (609) pointed out that the state of Washington did not contribute to the state retirement fund and that the system was actuarially unsound.

An article (628) concerning the teacher retirement fund of Minnesota under the 1931 law indicated that members paid 5 percent of their salaries annually (provided the salary did not exceed \$2000), the state dupli-

cating earned annuities. Membership was compulsory for teachers entering the profession. The public's contribution was made from the sale of tax certificates. The law provided for disability after 15 years of service and covered public school teachers, state teachers colleges, county superintendents, and members of the staff of the state department of education (637). The Minnesota law was the first to be successfully modified in the United States.

Kinneman's discussion (618) of the retirement law of Illinois indicated that it is actuarially unsound and provides no guarantee that money paid in after the fifteenth year can be recovered.

In a series of three brief articles concerning the Pennsylvania system, Baish (605) pointed out among other things that present employees, who were not then members, could not become members, but that teachers withdrawing from the system can reenter any time within five years after withdrawal. Membership is compulsory in the Pennsylvania system for all entering the profession, and includes teachers, county superintendents, and state college staffs.

An article in *School and Society* (633) stated that the retirement system for teachers in Virginia was actuarially unsound. Since 1908 the teachers of this state contributed to the retirement fund \$3,000,000 including interest, by paying into the fund one percent of their salaries against the state's annual contribution of \$5000. This resulted in a depletion of all funds by 1930 with 17,000 members and 1022 teachers on the retired list. Three deficits occurred within the life of the law (639). The state, however, confirmed its obligation by making additional appropriations when necessary to pay full annuities provided by law.

Answers to questions concerning the Wisconsin system (632) indicated 25 years of service required for retirement; credit received for teaching outside the state; joint contributions; optional payments; and in case of death before retirement age the beneficiary receives full deposits plus the state's contributions with interest. The soundness of the system was not indicated. The system appears to be conservative in not admitting teachers until they are 25 years of age and too generous in allowing retirement at the age of 50 years, or after 25 years of service.

By way of summary of this section it is indicated that the northern states are fairly well committed to the idea of statewide retirement systems for teachers, while the southern states are not. This appears to parallel the modernizing of state school systems. Pritchett (630) indicated that the most balanced of the state systems was perhaps that of Vermont. No public school teachers' retirement system can be regarded as ideal, and every system now in operation imposes compromises. The weaknesses and unfortunate circumstances of some of the systems should not obscure the fact that statewide systems are constantly becoming more sound. This is exemplified by legislative modification as in Minnesota and by scientific studies resulting in proposed legislation as was the case in Louisiana in 1932 (621).

## General Status of Retirement Systems

Pyrtle (631) reported that twenty-two states and the District of Columbia had statewide retirement systems in 1931. Eleven other states had laws which applied to certain cities, and sixteen others were working toward statewide retirement legislation. This indicated, nationally, the attitude of teachers and the public on the subject of retirement pay for teachers. The states and territories reported by the National Education Association (625) as having statewide retirement systems in 1931 were as follows: Arizona, California, Connecticut, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, Wisconsin, Alaska, District of Columbia, Hawaii, Panama Canal Zone, Philippine Islands, and Puerto Rico. In 1930 retirement funds included 60 percent of the 854,000 elementary- and secondary-school teachers. Local systems numbered 57.

Carr (608) showed the estimated number of teachers eligible for membership in the retirement systems that existed in 1928. A review of his data is given in Table 14. The total number of teachers in the United States was 916,000 in 1928, 60 percent of whom were covered by some types of retirement pay.

TABLE 14.—EXTENT OF TEACHER RETIREMENT SYSTEMS (608)

Units administering retirement systems	Number of systems	Number of teachers employed	Percent of total eligible covered by each type of system
State .....	22	427,629	76.29
City .....	56	95,928	17.11
County .....	5	5,580	.94
Territorial .....	6	35,931	6.41
Total .....	89	560,496	100.00

## Current Legislation

In 1931, Force (615) reported that of the twenty-three states operating teacher retirement systems, sixteen had bills under consideration in 1931. Teacher retirement became an issue in 70 percent of the states. In 1933, Force (614) brought up to date the 1931 statement concerning current legislation. She showed that in nineteen states and Hawaii sixty-two retirement proposals were introduced during 1932-33, of which twenty-one were passed, and approved. Attempts were made in 1933 to repeal three statewide teacher retirement laws, all of which failed.

## Teachers' Preferences in a Retirement System

In 1932 Cooke (611), by means of a questionnaire, studied the preferences of approximately 10,000 teachers and administrative officers, in forty-four states, Alaska, and Puerto Rico, regarding a dozen issues in teacher retirement. Seventy percent of the group believed membership



should be optional for those teaching prior to the enactment of the retirement law, while 30 percent believed that membership should be required of such teachers. Sixty-four percent of the teachers believed membership should be required of new teachers, while 36 percent thought membership should be optional for new teachers. The average amount for a desirable retirement allowance, as indicated by the teachers, is \$626.65. Eleven percent of the teachers thought that the entire cost of the retirement system should be paid by the teachers themselves, while 89 percent believed that the state should pay approximately half the cost. The teachers indicated that 50 percent of the members of the retirement board should be teachers; that an average of 23 years of service should be required before a teacher should be eligible for retirement. They gave 56 years of age as a desirable retirement age. Forty-two percent of the teachers favored compulsory superannuation retirement, fixing the compulsory retirement age at 60 years. Fifty-eight percent of the teachers, however, did not favor a compulsory retirement age for teachers. Where it is impossible to secure a teacher-retirement system by legislative enactment, 71 percent of the teachers favored group insurance, while 29 percent opposed such insurance. Eighty-three percent of the teachers favored federal aid for teachers' retirement systems, while 17 percent opposed such aid. Twelve percent favored a flat-rate plan of payment, namely, an average of approximately \$85 per year for each teacher. Eighty-eight percent favored a step-rate plan of payment, namely, approximately 5 percent of the teacher's salary.

### **Some Current Practices in Retirement Systems**

Smith's study (635) in 1932 indicated that in a few cases membership in statewide retirement systems included all state-supported institutions. Retirement was compulsory in nine states at the age of seventy. Flat benefits were paid in thirty-one state and local systems. In six states permanent homes for aged teachers had either been established or had been under consideration. Smith pointed out that the average retirement allowance for 1849 retired, certificated teachers in Pennsylvania in 1932 was for men, \$632; for women, \$687; and was for all, \$666—or 51 percent of average final active salary of \$1302. Significant data are not available with which to depict adequately the status of the retired teachers.

The Research Division of the National Education Association (626) made a comparative study of flat-rate and percent-of-salary retirement systems in 1931. Seven states, namely, California, Illinois, Indiana, Minnesota, Montana, Nevada, and Washington, operated under the flat-rate plan, while 19 others (including Alaska, the District of Columbia, and Hawaii) operated under the percent-of-salary plan. Contrasting features of the two plans are indicated in Table 15.

TABLE 15.—CONTRASTING FEATURES OF TWO TYPES OF RETIREMENT SYSTEMS (626)

Points of Comparison	Type of retirement system	
	Flat-rate (Indiana)	Percent-of-salary (Massachusetts)
Teacher's age on entrance.....	21 years	21 years
Years of service before retirement.....	40 years	39 years
Age of retirement.....	61 years	60 years
Active salary, first year.....	\$1000.00	\$1200.00
Active salary, second year.....	1050.00	1300.00
Maximum active salary.....	1700.00	2000.00
Deposit, first year.....	34.89	60.00
Deposit, second year.....	34.89	65.00
Deposit, third year.....	34.89	100.00
Deposit, fourth year.....	34.89	100.00
Total amount deposited.....	1060.71	2820.00

Force (613), in 1932, reported that of over 600,000 enrolments in retirement systems, 300,000 were then active members. The average service age for retirement varied from before sixty to as late as eighty. For disability allowances the average ranged from 32 to 60 years. In general, allowances for age or service did not exceed \$1000 for state systems, or \$800 for local systems, and for disability they did not exceed \$800 in either. In no system was the average allowance more than one-half the active salary, and for disability it was approximately one-third.

### Income Taxes and Pensions

In 1930 Patterson (629) submitted five problems concerning federal income taxes on pensions and annuities to the general counsel of the Bureau of Internal Revenue for rulings. The counsel held that: (a) retiring allowances granted to teachers by the Carnegie Foundation for the Advancement of Teaching were held to be gifts—not taxable; (b) amounts paid by the Carnegie Corporation under contracts made with the Teachers Insurance and Annuity Association were not taxable; (c) under the Columbia type both the amount paid by the university (5 percent of salary) and the professor (5 percent of own salary) were taxable income when paid into the Annuity Association; (d) under the Harvard plan the teacher's contribution of 5 percent is taxable income, but the university's contribution is not taxable; (e) annuity payments received by the annuitant will not be taxable to him until the aggregate payments exceed the aggregate contributions.

### Retirement Plans in Universities and Colleges

In a general discussion of the retiring university professor, Freeman (616) suggested a readjustment of administrative principles within the institutions of higher learning. Lindsay and Holland (620) pointed out that Mr. Carnegie gave, through the Carnegie Foundation for the Advance-

ment of Teaching, \$16,250,000 to provide retiring pensions to those who are eligible. In 1930 there were 777 associate-member institutions of the Carnegie Foundation for the Advancement of Teaching. The Report of the President and Treasurer (606) indicated that life annuities totaling \$76,238 per year were being paid to 151 persons and that the maximum insurance had been fixed at \$50,000. The average age for beginning allowances between 1906 and 1930 was 68.51 years, and the average allowance granted to 897 teachers on the basis of age was \$2123. The general retirement allowance for 1930 was \$1711.50, or a cost of \$154,040.08. The cost of allowances and pensions in force on June 30, 1930, was \$1,524,975.40, or an average of \$1661.19 for 918 teachers. In 1931 a total of 3190 members were approved for retirement allowances (607). The number of allowances and pensions granted during the year was 169 at a general average of \$1711.88. The general average of allowances and pensions was \$1655.22. In a national survey of land-grant colleges and universities, Klein (619) pointed out that only fourteen land-grant institutions had established systems of retirement; eight of which were of state origin, three of institutional origin, and three of private-endowment origin. Contributions are obligatory in six and optional in two. In most cases the systems are supported jointly on a 50-50 basis with the state.

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